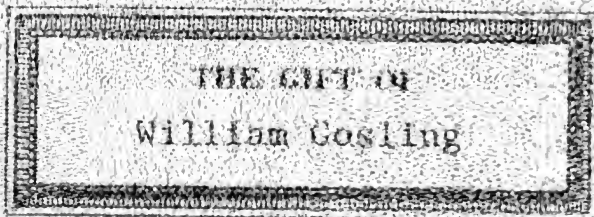
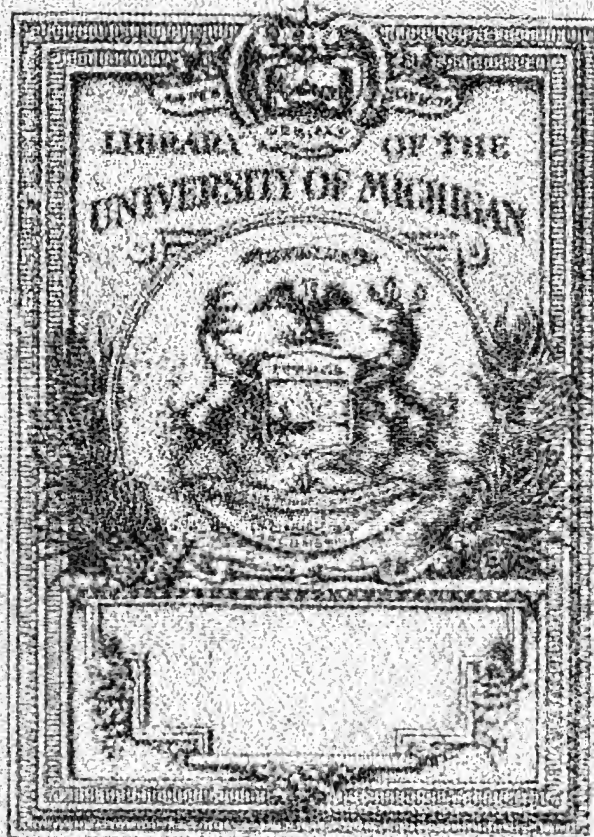


GRAD
V
133
.W371
1942
BUHR

A 1,028,390



WATCH OFFICER'S GUIDE

WATCH OFFICER'S GUIDE

United States Navy

BY

**CAPTAIN RUSSELL WILLSON
UNITED STATES NAVY**



UNITED STATES NAVAL INSTITUTE

ANNAPOLIS, MARYLAND

1941

GLAD

V

133

N371

1942

BUHR

COPYRIGHT 1930; 1935; 1941

BY

U. S. NAVAL INSTITUTE

ANNAPOLIS, MD.

Corrected and Reprinted April 1942

grad/1911
gift/William Gosling
5/28/02

PREFACE

THE WATCH OFFICER'S GUIDE, 1935, is an extensive revision, expansion, and rearrangement of WATCH OFFICER'S GUIDE, 1930, which in turn was based on the *Watch Officer's Manuals* of 1911, 1913, and 1917.

The revision consists principally of treating the duties and responsibilities of the watch officer primarily with reference to their relative importance. The result has been to place more emphasis on ship handling duties and technique, and on safety of personnel and material, with less emphasis on watch standing routine. While the introduction of the more exact relative movement methods of station keeping has greatly reduced the space previously devoted to station keeping, the treatment of maneuvers has been extended to include not only the usual maneuvers in close formation, but the equally important semi-independent maneuvers in extended formation. It is not assumed that the officer of the deck is necessarily officer of the deck of a battleship.

Chapters have been added on the important subjects of relative movement of ships, direct reading signals, and buoyage systems. The chapters on the log, weather signals, international signals, flags and insignia have been extensively revised and brought up to date.

The rearrangement consists of dividing the book into three parts.

Part I includes chapters on the officer of the deck in general, and the officer of the deck under way.

Part II covers the officer of the deck when not under way.

Part III includes miscellaneous reference material.

RUSSELL WILLSON
Captain, U. S. Navy

UNITED STATES NAVAL ACADEMY,
ANNAPOLIS, MARYLAND,
January 1, 1935.

• v •

PREFACE TO THIRD EDITION

The *Watch Officer's Guide*, 1941, is a revision designed primarily to bring the 1935 edition into accord with recent changes in Navy Regulations, particularly in the matter of honor. Minor changes in text have been made which clarify but do not alter the substance. Some material, such as buoyage systems and foreign weather signals, that may readily be found elsewhere, has been omitted.

The work of revision was done by officers of the Department of Seamanship and Navigation.

M. C. BOWMAN,
Captain, U. S. Navy,
Head of Department of Seamanship
and Navigation

CONTENTS

PART I—OFFICER OF THE DECK, IN GENERAL AND UNDER WAY

Chapter	Page
I Officer of the Deck in General	3
II Officer of the Deck Under Way	11
III Safe Navigation	18
IV Ship Handling in General	22
V Ship Handling in Formation	39
VI Safety of Personnel and Materiel	74
VII Assistance to Ships, Boats, or Planes, in Danger	80
VIII Smartness of Maneuver and Appearance ...	84
IX Comfort and Contentment of the Crew	87
X Routine	89

PART II—OFFICER OF THE DECK—NOT UNDER WAY

XI Safety of the Ship	99
XII Personnel, Boats, Planes, and Materiel	104
XIII Readiness of Ship for Duty	108
XIV Smartness of Ship, Boats, and Crew	112
XV Comfort and Contentment of Crew	116
XVI Routine	118

PART III—MISCELLANEOUS

XVII Relative Movement of Ships	141
XVIII Incidents During the Watch	147
XIX The Log	175
XX Honors and Ceremonies	199
XXI Direct Reading Signals	232
XXII Weather Signals	238
XXIII International Signals	243
XXIV Flags and Insignia	249
Plates I to XXXVI	
XXV Lights Required by the Rules of the Road..	288
Plates, Identification of Vessels by Their Lights	300
INDEX	309

PART I
OFFICER OF THE DECK,
IN GENERAL AND
UNDER WAY

*Chapter I***OFFICER OF THE DECK
IN GENERAL**

An officer should be thoroughly acquainted with the U. S. Navy Regulations. These have been compiled throughout the years. They are based on the accumulated knowledge of generations of naval officers. Each article has some history behind it and has been purposely recorded to prevent repetition of an error. Certainly one cannot go wrong if he follows to the best of his ability these regulations. Of all the professional books available to the inexperienced officer none is so valuable to him as the U. S. Navy Regulations.

MANNER OF PERFORMING DUTY

The manner in which an officer of the deck should carry on his duties, together with instructions concerning his bearing, are fully described in Navy Regulations. These articles should be read carefully and carried out scrupulously. By these regulations orders are required to be given in a decided and authoritative tone, no louder than necessary, using the phraseology customary to the service, and without any unnecessary repetition. An officer should make it a point to familiarize himself with the sea terms in ordinary use on board ship, to use these terms where appropriate, and to require those under him to do the same.

In giving orders that are to be repeated or passed the Regulations require the officer of the deck to use the exact words proper to pass them, and not permit any changes or additions by his subordinates.

An officer should require the boatswain's mate, the

bugler, and the messenger of the watch to remain habitually at their assigned stations, alert, and ready for duty, unless away in execution of his orders. It should never be necessary to preface orders by such expressions as "boatswain's mate" or "bugler."

He should exact a silent and prompt performance of duty and should never permit any unnecessary noise or confusion in the execution of his orders. He should be just, impartial, and fair in his dealings with the crew.

Article 1061 of the Navy Regulations reads:

"(1) The officer of the deck is the officer on watch in charge of the ship.

"(2) The officer of the deck shall be responsible for the safety of the ship, subject, however, to any orders he may receive from the commanding officer.

"(3) Every officer or other person on board the ship, whatever his rank, who is subject to the orders of the commanding officer, except the executive officer, shall be subordinate to the officer of the deck."

Article 1063(2) reads:

"He shall remain in charge until regularly relieved, and shall not engage in any occupation which may distract his attention from duty."

Article 1071 reads:

"(1) The officer of the deck shall bear in mind that his manner of performing duty has a great influence upon the discipline of the crew and the efficiency of the ship; that he should be dignified, discreet, zealous, energetic, and subordinate, displaying a feeling of deference to superiors and a spirit of kindness to inferiors. He shall himself scrupulously obey all orders and regulations, and require the same of his subordinates. He shall avoid the use of harsh language, and, while never permitting any duty to be performed in a careless, indifferent, or dilatory manner, he shall protect the crew from all unnecessary annoyances."

In other words, under the captain and the executive officer, the officer of the deck, until regularly relieved, is responsible for his ship, has all authority commensurate with that responsibility, and is required to be an example of efficiency, dignity, smartness, and zeal, in the performance of his duty.

There are, of course, many regulations, rules, instructions, and orders which concern the officer of the deck, in addition to Chapter 28 of the *Navy Regulations*.

Among the most important are:

War instructions and other tactical publications.

Rules of the road.

Safety precautions.

Honors and ceremonies.

Fleet and force instructions.

Ship organization and routine.

Ship's orders.

Special orders.

It is not humanly possible to be at all times letter perfect in everything that may concern an officer of the deck. The superior watch officer, however, is always ready for any situation that may arise, and for that reason, if we assume normal personal and professional qualifications, the most important faculty to be cultivated by the officer of the deck is that of *forehandedness*. If there is fog during the watch, an officer should check over the fog procedure before taking the deck. If he is to take part in fleet exercises, he should arrange to look over the orders before going on watch. If the ship is to enter New York Harbor, he should review the Inland Rules. If his watch is to be full of ceremonies, he must be letter perfect in the honors required and put a little extra snap in his own appearance. An officer must always look ahead, a minute, an hour, or a day, and make it his pride never to be caught unprepared.

Next to forehandedness in being thoroughly prepared

for conditions and circumstances that may reasonably be expected during a watch, the most important quality for the officer of the deck is probably *vigilance*. In no position more than that of officer of the deck is "eternal vigilance the price of safety." The officer of the deck must, of course, see intelligently all that comes within his vision, outside and inside the ship, but his vigilance must extend beyond this. He must cultivate the faculty of "foreseeing" situations as well as seeing them and must maintain and develop the vigilance of all others concerned with his watch.

A third important quality for the successful officer of the deck is that of *common sense*, which in his position is largely a sense of proportion and of the fitness of things. Watches vary all the way from hours of tenseness where the ship and its crew are in his hands every instant, as in high speed work at night in a darkened destroyer, down to the calm of a quiet Sunday afternoon at anchor, when he is just "keeping ship." It is well to adjust oneself to the kind of watch. On the darkened destroyer only essentials count and the officer must key his mind to its keenest pitch. On the Sunday afternoon, while there is no excuse for slackness, it may be that the most important immediate responsibility is to be affable and agreeable to undistinguished visitors. It is all a question of common sense.

The fourth important quality is largely a question of appearance and manner, but it is more than mere smartness, it is a manifestation of *leadership*, which instills in subordinates, confidence, pride, and a desire to emulate. Every watch officer should cultivate dignity, force, confidence, and precision in his manner of standing watch, and exact similar qualities from his assistants. He should be particular of his personal appearance, and should strive to avoid any indication of confusion, peevishness, or noisiness. He should always act the part of what he really is—

next to the captain, the most important person in the ship.

An officer's personal appearance is important at all times, specially so when he is the officer of the deck. It is not military to chew gum on watch. Nor should one smoke except by permission from a senior officer. While on watch an officer should not expect to be relaxed or at ease. He must be alert and an example to the enlisted men. Soft collars and hands in pockets are not the signs of a smart officer.

But the officer of the deck, well endowed with forehandedness, vigilance, common sense, and leadership, must have more—he must have technical knowledge of his job, he must know the relative importance of his many responsibilities and he must have experience. This book cannot cover even briefly the field of technical knowledge required by the officer of the deck, nor can it furnish him with experience.

An officer should know his own ship—her armament, construction, sub-division, and water-tight arrangements; location of various fittings, magazines and storerooms, offices, and living quarters.

In order that he may be prepared for emergencies while under way or at anchor, he should know the following:

(a) The locations of the instruments for sounding the general alarm and warning howlers on bridge and quarter-deck, and how to operate them.

(b) The location of the instrument for closing water-tight doors mechanically, and how to operate it.

(c) The stowage place of the collision mat and its gear, and the method of getting the mat over.

(d) How to turn searchlights on and off.

(e) How to veer chain in an emergency.

(f) How to let go an anchor.

(g) The locations from which the ship may be steered, and the method of shifting from power to hand steering gear.

WATCH OFFICER'S GUIDE

(h) Location of life buoys and how to let them go.

(i) The interior communication system, and especially how to communicate with the captain in an emergency.

An officer should first study his ship and next the organization of the personnel for battle, administration, safety, and cleaning. He should familiarize himself with the general requirements of the watch, quarter, and station bill, and should make a thorough study of that part for which he is responsible as a division officer. In routine watch keeping, familiarity with the cleaning bill enables one to carry on work with intelligence and dispatch and at the same time avoid friction.

An officer should know:

(a) The calls used on his ship for all emergencies, general drills, routine purposes, and boats, and where these calls are to be sounded.

(b) The sea details habitually stationed and the divisions from which they are detailed.

(c) The additional details made for fog or other circumstances.

(d) The details for "man overboard" evolution, including the lookouts.

(e) The detail of petty officers for duty at anchor engines and in connection with the ground tackle.

(f) Any special details, such as battle lookouts and aircraft lookouts.

In order to be efficient a watch officer should be familiar with the tactical data and maneuvering qualities of his ship.

He should know:

(a) Where the masthead heights (day and night) of his own ship and the ships adjacent in formation are listed.

(b) The number of degrees of rudder for full and standard rudder.

(c) The advance and the turning circles of his ship

with full rudder and standard rudder, and with one engine stopped or backing.

(d) How to turn ship on her heel from rest.

(e) How the ship loses way at various speeds when engines are stopped and when engines are backing.

(f) How to work a maneuvering board problem.

Before taking the deck for the first time on the ship to which he is ordered, an officer should carefully read the captain's order book and the routine or executive officer's book, making notes of all important orders. He should also examine the port routine and the sea routine. He should ask for a copy of the fleet regulations and force instructions and should study them carefully.

Prior to and during his watch it is a good plan for an officer to mentally picture probable casualties that require quick thinking and efficient action. For instance at the beginning of a watch, an officer should decide in his mind exactly what he would do in case of "man overboard," both from his own ship and from the ship ahead; in a fog, what he would do in case of collision or threatened collision; if a breakdown occurs in formation, which way he would turn; or if attacked by a submarine, how he would maneuver the ship and what he would do, depending upon her bearing.

An officer must be ready for all such occurrences, and in order to be ready it is necessary to anticipate ordinary emergencies by preparing in the mind exactly what orders should be given. This is the only way to avoid the loss of time that would follow, should it be necessary to think out the method of meeting an emergency.

MANNER OF RELIEVING THE DECK

It should be a matter of pride with every officer to relieve the deck on time. In order to do this, at least five minutes should be allowed for obtaining the necessary information from the officer about to be relieved. All neces-

WATCH OFFICER'S GUIDE

sary preparations for the period of the watch should be made in advance. If it is necessary to examine the chart or to read the night orders one should do so before presenting himself to the officer having the watch.

The correct formalities to be observed in taking over the deck are as follows: The relief officer proceeds to the starboard side of the quarter-deck, or wherever the officer of the deck may be, salutes and reports, "Sir, I am ready to relieve you." The officer of the deck then turns over the necessary information. When the relieving officer has grasped the situation and thoroughly understands the condition of affairs he again salutes and states "I relieve you, sir." The responsibility of the deck is then his.

*Chapter II***OFFICER OF THE DECK
UNDER WAY****GENERAL**

Few young men are called upon to accept responsibilities as heavy as those of the officer of the deck of a man-of-war at sea. For his position there is no counterpart in any other military service and few, if any, in civil life. As explained in the previous chapter, the successful officer of the deck requires a sound basis of technical knowledge, combined with forehandedness, vigilance, common sense, and leadership. He also requires experience. While experience must be gained on the bridge, many lessons of experience are matters of record, and may be presented here. The basic lessons of experience are incorporated in the *Navy Regulations*.

The following are the more important regulations concerning the officer of the deck under way:

Before taking charge.—1062(1). "Before taking charge, an officer about to relieve the deck shall make himself thoroughly acquainted with the position of the ship with reference to vessels in sight, and to any land, shoals, or rocks which may be near; with the general condition of the weather, the course, speed, main engines and boilers in use, condition and amount of sail set, all unexecuted orders, and the orders of the commanding officer for the night; with the condition of the running lights and other appliances required by law to be in operation or at hand in order to prevent collisions; and with the condition of the force on deck available for duty and the general condition of the ship."

Ship in station.—(2). “Before taking charge, when the ship is in squadron, he shall see that she is in her station; if out of her station, he may decline to take charge until he has reported the fact to the commanding officer and received his orders.”

May decline to relieve.—(3). “When at sea he may decline to relieve the deck until there is a watch up ready for duty. If the ship be in a perilous position he may also decline to relieve the deck until he has reported the fact to the commanding officer and received his orders.”

Approaching land or in pilot waters.—1063(1). “When at sea, and especially when approaching land or in pilot waters, the officer of the deck shall keep himself informed of the position of the ship; whether land or lights are in sight or whether either are likely to be seen, and of all other particulars which may be of use to him in keeping the ship out of danger. If approaching land or shoals, he shall keep leadsmen in the chains and have the anchors and chains clear and ready for use.”

Alertness and attention to duty under way.—(3). “He shall see that the junior officers and the watch are at all times alert, at their stations, attentive, and ready for duty; that every necessary precaution is taken to prevent accidents; that a boat is always ready for lowering and the life buoys ready for letting go; that the lookouts are in place and vigilant and that they understand their duties. He shall exercise great care that the ship is skillfully steered and kept on her course, and shall keep a correct account of the courses, the speed, and leeway made. He shall see that the running lights are kept bright from sunset to sunrise and their condition reported every half hour; that during a fog, when approaching vessels, and at all other times the precautions required by law to prevent collisions are fully complied with; that when in pilot waters the leads are kept going or that other means to ascertain the soundings are at hand and are frequently

used; and that nothing is placed near the compasses that will change their errors."

Keeping station, care in.—(4). "When in company with other ships he shall be very careful to keep in station; if unable to do so, he shall report at once to the commanding officer."

Commanding officer on bridge.—(5). "When the commanding officer is on the navigating bridge, the officer of the deck shall not change the course, alter the speed, nor perform important evolutions without consulting him."

Reports to commanding officer.—(6). "He shall promptly report to the commanding officer all lands, shoals, rocks, lighthouses, beacons, buoys, discolored water, vessels, or wrecks discovered; all changes in the weather or shifts of wind; all signals made; all changes of sail, speed, formation, or course by the senior officer present or the ships in company; any change in course or speed made by himself; any marked change in the barometer, force of the wind, state of the sea, or marked indications of bad weather; the display of storm signals on shore; all serious accidents; the winding of chronometers; the hours of 8 A.M., meridian, and 8 P.M.; when at sea, the latitude at meridian, if obtained; the movements of men-of-war, mail steamers, and other large vessels; and, in general, all occurrences worthy of notice."

Authority to change course.—(7). "He shall not, unless to avoid immediate danger, change the course without directions from the commanding officer, and then he shall report the change to him as soon as possible. When on soundings he shall regard advice from the navigator as sufficient authority to change the course; but he shall at once report the change to the commanding officer."

Physical condition.—Officers should see that they have a proper amount of rest before going on watch. If ill they should not hesitate, through any sense of pride, to

ask for a relief. The constant vigil, which is necessary while on watch, requires the complete possession of all the faculties and a sense of physical well-being, and an officer who feels that he is not capable of meeting all emergencies on account of illness owes a duty to himself and the ship to ask to be put on the sick list.

Clothing and equipment.—He will stand a better watch if properly clothed and equipped. Generally speaking, the bridge is a cold place. He should keep warm, particularly about the ankles, and keep dry. The officer of the deck should have the best pair of glasses available and see that they are clean and focused. He should have a stop watch at night and a small flashlight shaped like a fountain pen when the ship is darkened.

The bridge detail and the lookouts must be properly dressed and equipped.

He must be sure that all publications—signal, tactical, navigational, etc.—are at hand, and all current instructions and orders which may reasonably be required.

On a flagship the officer of the deck must have a definite understanding of what reports are to be made to “the flag,” how and when.

The officer of the deck should keep a taut bridge, a quiet bridge, and at night a dark bridge, and remember that however alert, reliable, and efficient the watch may be, he must be more alert, more reliable, and more efficient.

Relieve promptly.—This means much to the man relieved, but it may mean more to the man relieving. If he is late and relieves hurriedly, he may overlook something, and emergencies sometimes happen in the first few minutes. Even if late, he should not relieve the deck until thoroughly ready to do so. As soon as he says, “I relieve you” he is responsible.

Information on relieving the deck.—The following information should be obtained before relieving the deck. Experience or special circumstances may suggest adding additional items:

(a) *Tactical information.*—

Formation, prescribed distance, and interval.

Order of ships and, if in column, whether odd or even ship.

Identity and location of guide.

Course: true, magnetic, by gyro, and by standard compass.

Speed: standard speed, and speed then being made.

Reserve speed available, any order as to speeds to be used.

Station keeping data: amount and frequency of changes in revolutions to keep station, whether carrying any rudder, difference (if any) between prescribed course and course made good.

Readiness of equipment: position buoy, searchlights, signal guns, breakdown flag, and, when required, blinker tube, recognition signals, Very pistol, rockets, etc.

Any limitation on use of lights, whistle, etc.

(b) *Navigational information* (in addition to course and speed).—

Position of ship on the chart.

Land or aids to navigation in sight or expected.

Changes of course or speed ordered.

Depth of water if on soundings.

Leadsman in the chains.

Radio bearings and soundings taken or ordered.

Weather expected, condition of the barometer.

Any unusual conditions such as strong current experienced or expected.

For night watches, read and initial captain's night order book.

(c) *Ship information.*—

Condition of readiness.

Status of lookouts, sea details, and watch on deck.

Lifeboats and buoys ready.

WATCH OFFICER'S GUIDE

Condition of ground tackle, gun ports, air ports, ventilators, water-tight doors, etc.

Location of captain and navigator (and flag officer).

Drills, exercises, or ship's work scheduled for the watch.

Boilers in use; boilers or machinery out of commission.

Status of prisoners.

Any outstanding or unexecuted orders.

For night watches, read morning order book.

On relieving the deck under way, the officer of the deck should have a clear understanding of the relative importance of the several responsibilities which he assumes. Generally speaking, this fact has not been sufficiently emphasized. His responsibilities, approximately in order of their importance, are:

Safe navigation of the ship.

Safe and efficient handling of the ship in company with or in the presence of other ships.

Safety of personnel and material on board.

Assistance from the ship to ships, boats, or planes in danger or distress.

Smart handling and smart appearance of the ship.

Comfort and contentment on board.

An accurate watch routine carried out with smartness and precision.

A complete turn over to his relief and a good log.

All regulations, customs, instructions, wrinkles, and advice as regards watch standing are merely aids to the officer of the deck in meeting these responsibilities.

AFTER RELIEVING UNDER WAY

After relieving under way an officer should:

Verify information turned over by previous officer of the deck.

Carry out the "sea routine."

Frequently verify course and check up revolutions.

Be prepared to plot position of ship if called upon or if necessary for his own information.

Keep all sea details alert and instructed as to their duties.

Mustering the lifeboat's crew of the watch at the beginning of each watch, and receive reports concerning crew and lifeboats.

Make sure that gun crews on watch are alert and thoroughly prepared and instructed.

In all orders to the wheel or engine-room telegraphs, use correct phraseology.

Check up the entries in the columns of the log, particularly those with regard to courses steered, distances run, wind and weather.

If in formation, he should:

Require junior officer of watch to take and report distance by stadimeter constantly.

Keep proper distance. If unable to do so he should report to the captain.

ADDITIONAL FOR NIGHT WATCHES

Mustering the watch at the beginning of each watch.

Inspect the running lights, see them burning brightly unless ship is darkened, and have their condition reported every half hour with the bell.

Have "stand by" oil lights ready and lighted.

Have inspections of lower decks made every half hour.

Twice each watch have gunner's mate report the signal gun and condition of the battery and the carpenter's mate report the soundings of the double-bottoms.

If it is the morning watch, return the captain's night order book and the executive's morning order book to their respective offices by 0800.

Chapter III

SAFE NAVIGATION

Responsibility for the safe navigation of the ship lies with the captain, the navigator, and the officer of the deck. Generally speaking, the responsibility of the officer of the deck is principally in off shore navigation and piloting. His responsibility lies in:

1. Carrying out the captain's orders (particularly those in the night order book) as to course, speed, soundings, and reports.

2. Changing course and speed on the advice of the navigator.

3. Changing course and speed when necessary (if the captain is not on the bridge).

4. Reports to the admiral (if on board), captain and navigator concerning land and aids to navigation sighted or expected but not sighted, changes of course, speed, or visibility, soundings, etc.

5. Frequent checking and plotting of the ship's position when in sight of land or aids to navigation, especially in the absence of navigator from the bridge.

6. Taking soundings.

7. Noting effect on ship of current and wind in close waters, such as narrow channels.

8. Identification of lights, buoys, ranges, and other aids to navigation.

9. Obtaining radio bearings.

Before relieving the deck an officer should be certain he has all pertinent navigational information (see page 11) and necessary equipment—glass, stop watch, sailing

directions, light list, etc. He must be absolutely certain of the true course, compass course, and compass error, and be equally certain at all times that the steersman steers the correct course. Steersmen sometimes do almost unbelievable things. He should check his gyro compass constantly, particularly when alone. They go out now and then.

The officer of the deck must not follow other ships blindly. Even in close formation his responsibility for the safe navigation of his ship is unchanged. He must not hesitate to warn other ships if he thinks the formation is standing into danger. He should look out for being set down by current. When entering a channel he should steer a safe course rather than blindly following the ship ahead.

When in doubt as to the ship's position, due to poor visibility, uncertainty as to lights or landmarks, or for any other cause, the officer of the deck should notify the captain and navigator at once. He should not hesitate to use his own best judgment in slowing, stopping, or changing to a safer course while checking his position.

He should make full use of radio bearings, submarine bell, depth indicator, and sounding machine and remember that naval regulations require leadsmen in the chains when approaching land or shoals.

Plotting position.—In plotting ship's position, the officer of the deck should remember to be certain of the object with which he is working. Positions plotted on objects not properly identified are dangerous. Being certain of the objects, he may use:

- (a) Two or more bearings or horizontal angles.
- (b) Bearing and distance.
- (c) Two bearings of one object with run between bearings.

In the latter case, if he doubles the angle on the bow, the distance at second bearing is run between bearings.

WATCH OFFICER'S GUIDE

The bow and beam bearing is a special case of this rule.

In the following pairs of bearings, the run between bearings is the distance the object will be passed abeam:

22°	—	34°	29°	—	51°
25°	—	41°	32°	—	59°
27°	—	46°	40°	—	79°

These rules assume a steady course and make no allowance for current.

One must not place too much confidence in radio bearings. On the other hand, full weight should be given to any warning obtained from soundings.

Under way it is not only good training but also an excellent safeguard to require of the quartermaster once a watch to take at least one radio compass bearing of a radio beacon and one sounding, using the supersonic depth indicator. These should be recorded in the quartermaster's note book and plotted on the chart. Some commanding officers require this record to be placed in the night order book for their scrutiny.

Lights.—The officer of the deck must be certain of the identification of lights. Many ships have been lost by mistaking lights. He should always use a stop watch for timing lights and beware of haze making white lights appear reddish. When looking for a light, send the lookout aloft.

A light just visible on the horizon is distant in nautical miles $1.15 (\sqrt{h} + \sqrt{h_1})$ where h is the height of eye and h_1 , the height of the light, both in feet. Table 8 of Bowditch gives the same information.

Reduced visibility.—Fog lookouts must be stationed, fog signals made, and speed reduced, in reduced visibility. Visibility is reduced when a vessel's side lights cannot be seen at least 2 miles or if the whistle can be heard farther

WATCH OFFICER'S GUIDE

than the lights can be seen. Therefore, when visibility is reduced to 4,000 yards fog lookouts should be stationed, signals made, speed reduced, and the facts logged under remarks and in columns 14 and 18 on the data side of the log.

*Chapter IV***SHIP HANDLING IN GENERAL**

In handling a ship there are three elements which an officer of the deck controls—the rudder (course), the engines (speed), and the signals to indicate to others what the ship is doing. In working about docks, buoys, and other ships, lines and sometimes tugs are also available. While the skillful employment of these elements in ship handling is largely a matter of experience and observation, much is to be learned by study of standard works on seamanship. Watch officers should study and review from time to time Chapters XIII, XIV and XV of Knight's *Modern Seamanship*.

The watch officer must first concentrate on "knowing his ship," and getting the feel of her. He should take every opportunity to learn how the following general rules apply to his ship, as regards turning:

Pivoting point of a ship going ahead and swinging is generally about one quarter the length of the ship from the bow.

Shallow water makes a ship handle poorly.

To turn in shortest space.—Go ahead with considerable power on one engine until the ship starts ahead and begins to swing. Then back the other engine, adjusting relative speeds so that the ship will not move far ahead or astern. Rudder has little effect.

To turn in shortest time.—Go ahead with all available power and use hard over rudder.

To turn short with headway.—Keep headway on with one engine, while backing the "inboard" engine with less power. Use hard over rudder, as for going ahead.

Effect of speed on turns.—Speed affects the time of travel along the turning circle but has little effect on the form of that curve.

Effect of wind and sea.—A ship going ahead, particularly one with a high bow, turns more slowly into the wind and sea, more rapidly away from them.

In backing.—A ship generally backs into the wind, i.e., her stern goes up into the wind.

A right-handed screw, in backing, tends to throw the stern to port.

TACTICAL CHARACTERISTICS

An officer must know the tactical characteristics of his ship, and must keep at hand, readily accessible, tactical data giving rudder angles for the standard and other tactical diameters, and particularly the advance and transfer for different changes of course.

Turning circle.—Path described by ship when turning.

Advance.—Distance gained toward original front in turning.

Transfer.—Distance gained toward original flank in turning.

Tactical diameter.—Perpendicular distance in yards between line marking course at the beginning of turn and line marking course after turning 180 degrees.

Standard tactical diameter.—Tactical diameter prescribed to be used by ships during maneuvers (generally 1,000 yds.).

Standard rudder.—The angle of rudder which, under favorable conditions, will give standard tactical diameter.

As regards speed.—The manner in which ships gain and lose headway, carry their way, and respond to changes of engine speed varies with the size of ship, her lines, condition of bottom, wind, and state of sea. Only

the most general rules are possible. A heavy ship, a clean-bottomed ship, a ship with fine lines, will tend to hold her way and vice versa. A heavy ship, a foul-bottomed ship, a ship with broad lines, will tend to pick up headway slowly in response to changes of engine speed. Wind and sea ahead or astern of course tend to retard or accelerate.

STANDARD ORDERS FOR STEERING AND HANDLING ENGINES

It is imperative that the watch officer use only the standard phraseology in giving orders concerning the steering and the engines. An officer must learn these orders once for all and give them in a clear, firm, and audible voice.

Orders to steersman.—In orders to the steersman involving the direction to move the rudder, the *direction* is given first, to be followed immediately by the amount of rudder, the course to be steered, the object to be steered for or passed, or otherwise the motive for the change, in order that the steersman may execute the order with intelligence. For example:

Right (left) rudder.—A command to give her right rudder instantly an indeterminate amount.

Right (left) full rudder.

Right (left) standard rudder.

Right (left) 10 degrees rudder.

Should the officer of the deck become distracted, forgetting momentarily that the ship is swinging, a dangerous situation may arise. Therefore, he must give the new course to the steersman immediately.

The order may be "Course, zero four two," "Head for the lighthouse," "Pass the buoy close aboard on your starboard hand," "Follow the ship ahead," "Pass close astern of the," etc.

Other orders used in connection with the rudder are:

Give her more rudder.—Increase the rudder angle already on, to make her turn more rapidly.

Ease the rudder.—Decrease the rudder angle already on, when she is turning too rapidly, or is coming to the heading required. The order can be given "Ease to 15."

Rudder amidships.

Meet her.—Use rudder as may be necessary to check, but not entirely stop, her swing. Given when the ship's head is nearing the desired course, and she is to be kept from swinging by the new course.

Steady or Steady so or Steady as you go.

Shift the rudder.—Change from right to left rudder or vice versa. Given, for example, when the ship loses headway and gathers sternboard, to keep her turning in the same direction.

Mind your rudder.—A warning to exact more careful steering, or to put the steersman on the alert for the next command.

Nothing to the right (left).—Given when the course to be made good is a shade off the compass card mark, and all small variations from the course must be kept to the left (right).

Keep her so.—Given when the steersman reports her heading, and it is desired to steady her.

Very well.—Given to the steersman, after a report by him, to let him know that the situation is understood. (The expression *All right* should not be used. It might be confused as an order to the wheel.)

Course two one five, or steer zero four nine.—Orders to the steersman giving an exact course or heading shall be in one of the above forms and shall refer to the compass by which he is steering. "Course zero three one" is correct, *not* "course three one." It is good practice to have the course posted under the eye of the steersman. Insist on all orders being repeated back exactly as given.

It is not sufficient to give correct orders to the steers-

man. The officer of the deck is responsible for their correct execution and in general for the efficiency of the steersman's performance. Common sense dictates that the officer must know the ability of the several steersmen (including quartermasters) and that the best men are put at the wheel during maneuvers, when entering port, in heavy weather and in restricted waters. But steersmen must be trained and favorable opportunities seized to instruct them under the eye of more experienced men.

Always require the steersman to report to the officer of the deck the course turned over to his relief.

Under favorable conditions 5 degrees rudder is ample for steering a steady course. Inexperienced steersmen will use more. Weather conditions, variations in engine speeds, and errors in rudder indicators may result in a constant rudder angle which must be allowed for, noted, and turned over to one's relief.

The officer of the deck must know whether or not his ship uses an acceleration and deceleration table for increasing speed. Most large ships use such a table and therefore there is a definite time factor in increasing or decreasing speed. In an emergency there is usually some specific signal for abandoning such a table. This is usually accomplished by ringing up "stop" twice, ordering the engines to back, or ordering "ahead emergency full speed."

After a change in speed is rung up on the engine order telegraph, any change in revolutions transmitted by the revolution transmitter must necessarily be applied some minutes later. Therefore, it is advisable to wait until the engines have had time to follow the acceleration and deceleration tables before attempting any minor changes in revolutions.

The officer of the deck must bear in mind that standard speed is speed through the water and that the revolutions must be increased with time out of dock to obtain this speed. This means that sister-ships in a formation, steam-

ing at the same standard speed, may be using different revolutions to obtain this speed. It is always important to log not only the standard speed in knots, but also the number of revolutions per minute. The latter is usually established by the navigator.

In making one-third or two-thirds of standard speed, the ship must base that fraction on knots. It is not based on one-third or two-thirds of the revolutions per minute for standard speed.

CO-OPERATION WITH ENGINE-ROOM

The officer of the deck should make part of his general plan the hearty co-operation with the engine-room. He owes it to his ship and to himself. Furthermore, he may be at the other end next quarter. The engine-room wants all possible warning of changes, plus sympathetic appreciation of their particular problems. Keep the engine-room informed as far in advance as possible of:

Expected changes of speed (with duration, if possible).

Time of anchoring and getting under way.

When beginning maneuvers or when settling down for steady steaming.

When the ship is guide.

When reserve speed requirements are to be changed.

When entering close waters, going alongside docks, etc.

In general, any situations, orders, or circumstances which may affect the operation of the engineer department.

Avoid too many, and too radical changes of speed. Except in emergencies do not ring from ahead to astern without ringing "stop" in between.

When conditions permit, use the bell pulls now and then. They will be better understood in an emergency.

Insist that all orders to the engine-room be repeated correctly by the same means as sent. On the other hand,

see that reports from engine-room to bridge are repeated by way of acknowledgment.

Engine order telegraphs.—In addition to the markings of the standard engine-order telegraphs, the following engine signals are available:

Ahead emergency full.—For all available speed *ahead* to meet an emergency. Three or more rapid rings for full speed ahead on engine-order telegraphs.

Back emergency full.—For all available speed *astern* to meet an emergency. Three or more rapid rings for full speed astern on engine-order telegraphs.

Flank speed. (In ships where flank speed is not otherwise provided for on the engine order telegraphs.) Ahead full speed rung up twice, or if at full speed already, then ring once. Engine-room should be notified by other means also, including revolution indicators, if fitted (as on large ships).

Standard orders to engine telegraph operators.—The order is in three parts:

The engine or engines, as "starboard (port) engine," "all engines," etc.

The direction, as "ahead" or "back."

The amount, as "standard," "one-third," etc.

Thus the complete order, "port engine, ahead two-thirds," "starboard engine, back full," etc.

Checking telegraphs.—Have all orders repeated back by engine order telegraph operator. When the order to the engines is acknowledged by the engine-rooms, and the shaft revolution indicator shows that the engines are obeying, the telegraph men must report, for example, "Starboard engine backing one-third, sir."

In all cases the officer of the deck must check the execution of his orders.

Bell pull signals.—Many ships are equipped with bell pulls for emergency signals to the engine-rooms, should other methods fail. Like a pistol, they are not often used,

but when needed are badly needed. Learn them once for all. In the Navy the standard "bells" are:

- 1 bell—Ahead slow.
- 2 bells—Stop.
- 3 bells—Back.
- 4 bells—Ahead full.

In addition to engine-order telegraphs and bell pulls, most ships have voice tubes to the engine-room, and larger ships have telephones, and revolution indicators. The officer of the deck must assure himself by frequent test that all means of communication with the engine-room and all systems of signals are in operating order.

COURSE AND SPEED INDICATORS

The officer of the deck in handling his ship is not only responsible for his course and for his speed, but when in company or otherwise in sight of other vessels is frequently responsible for indicating by certain signals what he is doing or intends to do with his course (rudder) and with his speed (engines).

There are really two systems of course and speed indicators, one under the Rules of the Road and the other under the standard tactical instructions of the Navy. The officer of the deck must be thoroughly familiar with both.

SHIP HANDLING SITUATIONS

Generally speaking, there are three different situations as regards the safe and efficient handling of a ship:

- (1) When maneuvering in restricted waters, as in making or clearing a dock, buoy, or other ship.
- (2) When proceeding independently, meeting other vessels, encountering fog, etc., and governed primarily by the Rules of the Road.
- (3) When in formation with other naval vessels and governed primarily by naval standard instructions.

The rest of this chapter deals briefly with the first and second of these situations. The third situation, which is probably the most common, is discussed at more length in the next chapter.

Ship handling in restricted waters.—As a general proposition, a watch officer, particularly if young and inexperienced, will not be called upon to handle the ship in restricted waters, in making landings, and in picking up buoys. The captain or executive officer normally takes the conn at such times. However, the watch officer cannot begin too early to study by close observation the problems of ship handling under such conditions. Watch officers in destroyers and submarines have particularly good opportunities to learn by observing experienced ship handlers and by comparing their own "mental maneuvers" with the maneuver as actually performed. They should eagerly embrace any opportunity that offers, to gain experience in close-in work with their ships and as a basis for learning by practical observation and experience. All watch officers must review frequently Chapter XIV of Knight's *Modern Seamanship*.

An officer may not be required to handle the ship while making a dock but he must know the various lines used.

Bow line.—Led through the bow towing chock, or bull-nose, and made fast on the pier well ahead of the ship.

Forward bow spring.—Led from a chock on the fore-castle anywhere between the stem and the bridge. Leads forward to a bollard on the pier.

Bow breast.—Led from a chock near the bow and at right angles to the keel.

After bow spring.—Same as the forward bow spring except that it leads aft.

Forward quarter spring.—Led from a chock on the quarter. Leads forward to a bollard on the pier.

Quarter breast.—Led from a chock on the quarter and at right angles to the keel.

After quarter spring.—Same as the forward quarter spring except that it leads aft.

Stern line.—Led through the stern towing chock and made fast on the pier well astern of the ship.

Whatever an officer's station when leaving a dock he can always be of service by keeping his eyes open for the steamer, ferry, or small boat that so frequently appears at just the wrong time and place. Remember that in Inland Rules in backing out from a slip or dock, the proper whistle signal is one long blast as a warning signal, not three blasts to show backing. Also remember when clear of the dock and still backing, to give three short blasts if another vessel is approaching.

Ship handling under rules of the road.—This book is not the place for the "Rules of the Road." They will be found in Knight's *Modern Seamanship* and in Chapter 55 of *Navy Regulations*. In studying the "Rules," it could be kept clearly in mind that they are composite in character, consisting of:

(1) The International Rules, concerning navigation on the high seas.

(2) The Inland Rules for United States waters.

(3) Pilot Rules and local regulations which supplement Inland Rules.

(4) Decisions and interpretations by courts.

It should further be kept in mind that nations other than the United States also have local rules which must be considered when in their waters. These local foreign regulations must frequently be obtained from pilots or sailing directions.

The officer of the deck must know the Rules of the Road for any situation that may confront him—their application and interpretation. If he does not, he risks his shipmates, his ship, and his commission when he takes the deck.

In practice, the best way to assure the correct action or

interpretation in any situation involving the Rules of the Road is to check over in one's mind, or in the book if necessary, the items which may arise under existing conditions, and not burden the mind with rules which concern some other situation. During a clear forenoon watch, mentally check the crossing situations and signals—one may forget about lights for the time being. The officer of the deck must know in advance when he will pass from the waters of Inland Rules to those of International Rules.

He must read and learn all he can about Rules of the Road. They constitute a professional subject much discussed, with many and varied interpretations. It may concern hundreds of lives, and thousands of dollars.

Review frequently Chapter XIII of Knight's *Modern Seamanship* on "Maneuvering to Avoid Collision."

The situation in which the officer of the deck is required to handle his ship in accordance with the Rules of the Road is of common occurrence:

(1) When proceeding independently and encountering naval or other vessels.

(2) When in company with other naval vessels joining up, forming, or breaking up a formation.

(3) In a formation, encountering other ships and forced to maneuver independently of the formation.

In case (1), it is just a plain ship under International or Inland Rules, as the case may be. Being a naval vessel, rather than conferring any privileges, increases the responsibility to be most exact and absolutely correct in all one's actions under the rules.

In case (2), the Rules of the Road govern absolutely, but there are certain advantages in the added confidence in the other ships, the benefit of their speed indicators or other signals, the knowledge that small high-powered ships like destroyers may be counted upon not to embarrass large ships like battleships and carriers.

In case (3), it is the rather common situation of naval

vessels in formation encountering other vessels in position involving the Rules of the Road. Generally speaking, a single naval unit may be counted upon to avoid embarrassing ships of a larger formation. A destroyer, for example, will not break into a battleship formation by maintaining a theoretical right of way. On the other hand, merchant vessels, particularly if confused by the lights of many ships, will often maintain their right of way and run directly into a formation. Under favorable circumstances, a small formation, good visibility, no other ships involved, etc., the formation commander will probably maneuver his unit as necessary to clear the "outsider." The officer of the deck of a ship in formation must not count on the unit being maneuvered clear. This is a difficult or impossible maneuver under many conditions, and under any circumstances, the officer of the deck is responsible for handling his own ship in accordance with the Rules of the Road, as regards the outsider and naval standard instructions as regards naval vessels in the formation.

The following *general cautionary rules* are applicable to vessels which are part of the same force or formation:

(a) Individual vessels shall keep clear of vessels in close formation.

(b) Small vessels of high speed and good maneuvering qualities shall avoid hampering the movements of larger and less handy units.

(c) Destroyers which are required to pass through the intervals of a formation of heavy ships will not expect the larger vessels to take action to facilitate their passage through the formation and will, when practicable, pass between the divisions.

(d) A vessel which is out of her position in formation will be so handled as to avoid hampering the movements of vessels which are in their proper stations.

In situations where danger of collision exists it is in-

cumbent on both vessels concerned to take prompt and effective steps to relieve this danger.

Among naval vessels or in inland waters of the United States *the danger signal* (four or more short toots) may be made to call attention to a situation likely to result in danger of collision. If used, this signal should be made before the situation has become so acute as to call for immediate action, that it may not confuse or delay the exchange of maneuvering signals.

Where vessels of the same formation approach each other in a fog in such manner as to involve risk of collision, both vessels should, if practicable, take the base course of the formation until the situation clears.

Always take bearings of crossing or meeting vessels, or vessels that may become such. If the bearing draws forward she will pass ahead. If it draws aft she will pass astern. If it remains the same there is risk of collision. The bearing should be taken on the bow or stern if passing respectively ahead of or astern of the other vessel. The only difficulty will be with the bearing of a crossing vessel on the starboard bow drawing very slowly aft, when one cannot be sure whether or not it will pass clear astern. In this case the burdened vessel must take action at once.

The officers of tramp steamers are not as likely to be familiar with Rules of the Road as officers of regular liners and it is a good policy to give them as much room as possible and be prepared to maneuver to keep out of their way. Some merchant ship captains make a practice of maneuvering to put the other ship on their port bow, "showing the red light," with the idea of thus obtaining the right of way. A change of course for this purpose violates the rules, and does not relieve them of responsibility they otherwise would have. It is a dangerous practice, particularly in crowded waters, but should always be kept in mind, as a possibility to be reckoned with.

Merchant vessels frequently maintain their right of way right through a formation. When cruising in formation and merchantmen are sighted, the officer of the deck should keep close observation on their movements. It may be that he is not near the point where she breaks through the formation, but he may be vitally concerned in the maneuvering attendant on her breaking through.

Sound signals.—The officer of the deck must know not only the sound signals for course and speed as required by the rules, but also the exact details of their use, and the difference between their meaning under the International, Inland, and Pilot Rules. Remember that a *short blast* is one of about one second. The distinction between this signal and the “prolonged blast” (four to six seconds) used as a fog signal is of great importance, particularly when vessels are in sight of each other in a fog, or are in formation and changing course in a fog.

Under the *International Rules*, the sound signals for course and speed are the same for “meeting” and “crossing” vessels. From *International Rules* (Art. 28):

One short blast to mean, “*I am directing my course to starboard.*”

Two short blasts to mean, “*I am directing my course to port.*”

Three short blasts to mean, “*My engines are going full speed astern.*”

Under the *United States Inland Rules and Pilot Rules*,

(1) *Vessels meeting end on or nearly so—*

One short blast, “*I intend to alter courses to starboard and pass you on your port side.*”

Two short blasts, “*I intend to alter course to port and pass you on your starboard side.*”

(2) *Vessels crossing—*

One short blast on the whistle of the burdened vessel signifies intention to direct course to own starboard, and to pass astern of the other. When sounded by the privi-

leged vessel it signifies intention of that steam vessel to hold course and speed.

Three short blasts of the whistle shall mean, "My engines are going at full speed astern."

IN FOG

In fog or low visibility, the officer of the deck of a naval ship is responsible for proceeding in accordance with the "Rules." If in formation, there are additional requirements which will be touched upon later.

Aside from the special requirements of formation cruising, the essentials in a fog are:

- (1) Maintain intense vigilance and proper lookouts.
- (2) Make proper fog signals.
- (3) Reduce speed.
- (4) Close necessary watertight doors and hatches.
- (5) Turn on running lights.
- (6) Have sufficient boiler power.

Intense vigilance includes not only vigilance of the officer of the deck, but the stationing of extra lookouts, and their proper supervision and instruction. The ship organization will generally provide for extra lookouts. In lowlying fogs, it is sometimes well to send a lookout aloft, particularly in entering or leaving port, where the masts of large vessels may be seen above the fog. One or more competent men should be stationed in the eyes and one on each side in the vicinity of the bridge, as low as possible, and one aft.

Proper fog signals.—Be accurate in the use of fog signals, and do not hesitate to start them when fog, mist, snow, or rain interfere with visibility or when steaming close to any of these conditions. It is not necessary to get permission from any one to start the whistle. Use a stop watch to time it correctly.

Remember:

- (1) That the "one prolonged blast" of the fog whistle

is "four to six seconds" and under the International Rules is made "at intervals not exceeding once every *two* minutes," while the ship has way upon it, even though the engines may be stopped.

(2) That in the inland waters of the United States this interval is "not exceeding *one* minute," and may vary somewhat under the local rules of other countries.

(3) That the two prolonged blasts signal for "under way but stopped, with no way upon her" is not used under the Inland Rules of the United States. In inland waters of the United States, sound *one* prolonged blast when under way, even if stopped and no way upon the ship.

(4) That for the vessel towing, in connection with the signal of one prolonged and two short blasts, the maximum interval is two minutes by International Rules and one minute under the United States Inland Rules. For the vessel being towed, the signal of one prolonged and two short blasts, shall be at intervals not exceeding two minutes (International Rules), and one minute (Inland Rules).

Speed in fog.—For the officer of the deck, setting the speed in a fog on his own responsibility, there is but one sound rule, i.e., of two speeds under consideration, always take the slower.

The proper speed in a fog has been held to be such a speed as will enable a vessel to bring herself to rest before coming into collision with any other vessel which she can sight through the fog in its existing condition, assuming that the other vessel is also running at a proper speed and that both vessels act promptly to prevent collision. Steamers have been found at fault when running at less than 5 knots. If the fog is so dense that a ship which has barely steerageway and a good reserve of power cannot see another in time to avoid her even at that low speed, then the law requires vessels to stop and, if circumstances permit, to anchor.

WATCH OFFICER'S GUIDE

In deciding the speed to use the following must be considered:

- (1) Visibility
- (2) Locality
- (3) Maneuverability.

Remember the definite requirement of both the International and United States Inland Rules, that a ship "stop her engines, and then navigate with caution," when she hears a ship's fog signal apparently forward of her beam.

In interpreting the fog signals of other ships, direction is probably most important, and direction is deceptive and uncertain.

Within limits one can make some deductions from the sound of fog signals. A sailing vessel using a fog horn can generally (but not always) be distinguished from a steam vessel using a whistle or siren. If there is considerable breeze, one can roughly estimate her heading from her signals. An obviously powerful whistle generally means a large man-of-war, or large passenger ship, and if in lanes of the liners, one may expect they are making excessive speed for fog conditions.

It is good practice under peacetime conditions in fog to broadcast over the distress frequency (500 kcs.) for merchant vessels in the vicinity a message giving the name of the ship, course, speed, position, visibility. It can also be sent on 375 kcs. for all naval vessels in the vicinity.

If in waters where icebergs may be encountered, stop or, if necessary, run dead slow, watch for changes in temperature of water, and listen for echoes of your whistle.

*Chapter V***SHIP HANDLING IN
FORMATION****GENERAL**

Naval vessels, particularly combatant ships, normally operate in formation with other vessels. They perform maneuvers, often complicated, in close formations, and often at high speeds. They operate in fog, in smoke, in darkness, frequently without lights. It is under these conditions that an officer of the deck meets his severest test.

To be successful in handling a ship in formation, one must have experience, coolness and self-control, and technical knowledge. This book, so far as it can, records some of the important lessons of experience. It can only advise that an officer cultivate the qualities of coolness under strain, of self-control and clear thinking in situations of tenseness and excitement. These qualities are largely personal characteristics, but they may be developed with confidence born of experience, and in association with officers possessing these qualities in a marked degree.

This book can outline in only the briefest way the technical knowledge which the officer of the deck must have if he is to excel in handling his ship in formation. It is his responsibility to acquire this knowledge, and it can be done only by study.

The officer of the deck in formation must be thoroughly qualified in ship handling in general, as outlined in the preceding chapter, particularly in the tactical qualities of his ship, standard phraseology of the bridge, the Rules of

the Road, and the general cautionary rules for vessels which are part of the same force or formation.

He should have a background of general knowledge concerning the fleet, and a clear conception of the general plan underlying its organization, training, and fighting, as given in the War Instructions and other basic publications. He must be familiar with the fleet dispositions and maneuvers, and particularly with the normal employment of his type and its relation to the fleet as a whole. So far as it may affect the handling of his own ship, he must also have a general knowledge of the formation, maneuvers, limitations, and characteristics of all types, including aircraft, with which he may operate.

He must be entirely familiar with the formations, maneuvers, and tactical instructions for his own type of ship; must know the technique of minor tactics as given in the General Tactical Instructions; must be proficient in relative movement (maneuvering board) problems. He must know the direct reading system of signals.

The relative movement of ships is very largely the basis of skillful ship handling in or out of formation. An officer must learn once for all, to solve readily and accurately the usual relative movement problems, employing the maneuvering board. He must of course be expert with the stadimeter, pelorus, range finder, and other operating equipment on the bridge. (For relative movement of ships, see Chapter XVII.)

Direct reading system of signals.—It is not expected that the officer of the deck be an expert signalman. On the other hand, he must be able to read direct reading signals. That is the class of tactical signals which are constructed on a system and may be translated without reference to the signal book.

Next to complete information and knowledge at one's finger tips is the certainty of having at hand the publications or other references containing that information. The

experienced officer of the deck always assures himself of having at hand the references he may require during his watch.

GETTING UNDER WAY AND ANCHORING

Getting under way.—The preliminary preparations for getting under way are covered in Chapter XIII. The important thing is to be all ready for getting under way in ample time, so as to make the transition from at anchor to under way status without undue haste or effort.

Forehandedness is the great thing. Get on the bridge well ahead of time to see that the ship is as well placed as the others for getting under way and standing out promptly. Be sure to have plenty of power on the windlass. If the ship lies at a disadvantage, as compared with the other ships, call this fact to the captain's attention. He may want to try to improve her heading with the engines while the anchor is still down, or he may want to get permission to get under way a few minutes early or to cast in the opposite direction; or he may heave around ahead of time. The idea is, by looking ahead, to assure a fair start with the other ships, both as to heading and as to anchors aweigh.

The actual ship handling in getting under way will usually be done by the captain or executive, but this is an opportunity to learn by observations.

The various situations in getting under way are without number. If not in formation, the object is to get under way smartly and as soon as possible to take station at proper distance from the unit guide, on her course and at her speed. In doing this, follow the rules of maneuver, but also show every consideration for the other ships getting under way. If anchored in formation, the unit may be headed fair in natural order or inverted order, a simple case which offers no difficulties, provided the ship goes ahead in time to keep *closed up*.

WATCH OFFICER'S GUIDE

If the ship is not headed fair, the order to get under way will generally indicate the direction in which the ships will cast. In slack water, ships of the same unit may be headed in varying directions, so that some must cast one way and some another.

Under the above conditions, when ships must be turned before standing out, they should, as far as possible, follow the flagship and maintain the bearing from the guide. Remember that:

(1) With out-turning screws, ships will generally turn on the heel by backing full on the inner screw and going ahead about two-thirds on the outer screw. The power should be varied to keep way off the ship. The rudder may be kept amidships.

(2) With little water under the keel, it is better to use less power. When the wash reaches the bow the ship is apt to swing back, opposite to the expected direction.

(3) With ships having four shafts and small propellers, it may be necessary to start the ship swinging in the proper direction by going ahead on all engines with hard-over rudder before backing the screws on the side toward which the turn is to be made. Experience is necessary in order to stop the swing at the proper point. In large ships the engines are usually stopped when about 20° or 30° from desired heading, and reversed at about 10° .

In turning rely only on the man in the chains, or on ranges to tell about headway or sternboard. Nothing can be told by watching water disturbed by screw currents.

When turned and ready, go ahead promptly, following the flagship, taking distance from that ship, and disregarding, so far as safety permits, any ships delayed or otherwise behind station.

Anchoring accurately in formation is a difficult maneuver, because it requires exceptionally accurate station keeping when approaching the anchorage at low

speed—and the slower the speed the more difficult the station keeping.

To counteract the inherent difficulties in the maneuver requires:

Accurate revolutions, particularly at one-third speed.

Skillful steering by the best steersman.

Extreme vigilance by the officer of the deck to detect immediately when ship begins to gain or lose.

More radical handling of rudder and engines than under normal cruising conditions.

Greatest care in handling speed indicators.

Dropping anchor exactly on signal.

Be sure that the engine-room knows the ship is approaching an anchorage. As the formation slows, station keeping will become more difficult and more important. Small changes in revolutions and small rudder will be ineffective and it may be necessary to go from, say, one-third to stop, or to two-thirds.

It may be necessary to check headway by a kick astern on the engines though this should be avoided if possible. Should it be necessary to back, it is best to have the rudder amidships to keep the same heading. Should the ship start to swing, losing steerageway, it may be necessary to use the engines to check her and bring her back to the proper heading.

Let go the anchor promptly with the anchoring signal, backing and veering chain as necessary to avoid snubbing the ship with the anchor chain.

STATION KEEPING

Accurate station keeping is a prime requisite to safety and smartness in cruising and in maneuvers. It is also, to a considerable extent, an indication of the alertness and skill of the watch officer.

As stations are determined by bearing and distance from the guide, the basis of good station keeping is con-

tinuous and accurate knowledge of the bearing of the guide and the distance from the guide and the next ship toward the guide.

Bearings, as determined by specific signal or by the formation then in, are reckoned from the guide, either "true," or "relative" to the guide whose true course is known. On the station keeping ship, the bearing is normally converted to the bearing of guide from the ship, by gyro repeater at the pelorus, and this is the bearing used in constantly checking position.

Distance is normally prescribed as space between adjacent ships, and is measured from your ship to the next ship toward the guide. In practice, however, it is not quite so simple. The theoretically correct station is a certain distance from the guide, depending on prescribed distance and number of ships between the ship and the guide. Endeavor to maintain this distance from the guide so far as it is possible to do so without interfering with the safety of maneuver in connection with the next ship toward the guide. As a result there is a double responsibility as regards distance. One must know accurately and detect promptly changes in distance on the next ship toward the guide.

To avoid ambiguity, use the terms "opening" and "closing" in observations of distance. When distance is taken to the mainmast, as when in column, the observer should add the distance of mainmast to bridge to get correct distance.

The great value of the stadimeter and other distance measuring devices is in quickly detecting when the ship begins to close or open.

Practice estimating distances by eye. Unless there is considerable motion of the ship, one can make a good estimate and detect changes by standing at some spot on the bridge and lining up the jack staff with some point on the ship ahead.

Kinds of station keeping.—There are two kinds of

station keeping, (1) *close station keeping*—as in any of the normal formations, at standard distance; and (2) *distant station keeping*—as in the case of a ship acting as a station unit in a fleet disposition. In close station keeping, the greatest attainable accuracy is required and the changes of course and speed in correcting position are limited by the nearness of adjacent ships. In distant station keeping, the assigned position is approximate and the ship is free to make larger changes of course and speed, if necessary, in adjusting her position.

CLOSE STATION KEEPING

In column.—Station keeping in a column formation is almost entirely a question of speed adjustment and of having the feel of the ship, as changes in actual speed lag behind the changes in revolutions ordered from the bridge.

If the leader and guide, make every effort to insure good steering and steady and accurate speed. Watch the steersman and frequently check the revolutions. The officer of the deck of a ship astern will appreciate the importance of this extra care on the part of the guide.

If not the leader, one's ability to keep station depends primarily on getting the feel of the ship, and quickly detecting changes in distance. The feel of the ship is based on experience and common sense. It is obvious that there is a lag in the effect of the changes in revolutions. Study this lag intently and learn to anticipate. It varies of course with the size and type of ship, condition of bottom, etc.

Be prompt and accurate in operating your speed indicators. Remember the Golden Rule.

In general, when in column keep inside rather than outside distance. It is much easier to drop back than to close up. A ship that is regularly behind position is not a smart ship and the captain will get unpleasant signals which will not help the officer of the deck. The usual tolerance is ten per cent of the distance with two-thirds inside and one-third outside.

The chances of collision with the ship ahead, when cruising in column, are extremely remote.

An officer must always keep in mind whether he is on an odd-numbered ship and sheers out to the right, or an even-numbered ship and sheers out to the left. When he is getting uncomfortably close to the ship ahead, he must place his bow slightly on the side toward which the ship is required to sheer.

Keep a sharp lookout on the ship ahead but don't forget the ship astern; always know when that ship is too close and if practicable co-operate with him with some slight increase in speed.

In column open order.—The second or third ship is 3° or 1.5° respectively on the quarter of the leader. These are small angles. The ship is out of position if she materially exceeds them.

Remember that as soon as any change of course is signalled or made the ships at once sheer into exact column without waiting for execution.

In line or line of bearing.—Station keeping in line and line of bearing involves not only the feel of the ship as regards changes of speed but also the interrelated effect of changes in both course and speed upon both bearing and distance. It is highly important to detect promptly any change in bearing or distance.

Correct bearing is generally considered more important than correct distance (errors in bearing are more apparent on the flagship). It is generally considered better to be slightly behind bearing than ahead of it. It is of course best to be accurately on station in both bearing and distance. The usual tolerance is 1° ahead or 2° behind position. It is better to be outside of distance than inside.

METHODS OF STATION KEEPING

There are three methods of station keeping in line and line of bearing:

- (a) The track line method.
- (b) The bearing first method.
- (c) The relative movement method.

Of these the first two are rough and approximate methods, the last is more nearly exact.

(a) Track line method.—In this method, the officer of the deck, using the maneuvering board, plots (1) his assigned position, (2) his track line through that position, and (3) his actual position. If his actual position is on the track line, he gains position by changes of speed only; if off the track line, he gains his proper position by first changing course toward the track line (making some adjustment in speed if possible), and then, when on the track line, by changing speed to move ahead or drop back as may be necessary.

This method requires continuous plotting, or the use of a pivoted arm on a maneuvering board. It is not the quickest method of correcting position, and adjustments of speed, when regaining the track line, are a matter of trial and error, or seaman's eye.

(b) Bearing first method.—By this method, the officer of the deck maneuvers (1) to correct his bearing and (2) to correct his distance. This recognizes the idea that bearing is more important than distance, but to a considerable extent, it disregards the relation between the two. In common with the track line method it tends to make two bites of the rather simple problem of regaining position.

(c) Relative movement method.—By this method, the officer of the deck determines from his position errors, or from plotting, the direction of relative movement necessary to take him to his correct position. He then chooses a combination of speed and course changes, which will result in the desired relative movement.

STATION KEEPING IN FOG

Cruising in formation in fog or other form of low visibility involves responsibilities in addition to those of independent cruising under similar visibility. Experience and common sense require that ships keep well closed up. This is the greatest single aid to safety when cruising in formation in a fog. As long as one can see the ship ahead, her searchlight, or her position buoy, the ship is generally safe, even if well inside distance. It is when the adjacent ships are lost that the ship is in danger and a menace to others, and particularly so when part of a large disposition.

On the approach of thick weather, vessels will normally be disposed in column or a series of columns separated by a sufficient distance to avoid danger of interference.

Searchlights will be manned without signal when thick weather is encountered.

Fog lookouts must be stationed promptly. On small ships one man in the eyes of the ship might be sufficient, while on larger vessels with a larger complement, many more are required. Usually two in the eyes of the ship, one on each side in the vicinity of the bridge and as low as possible, one aloft and one aft are sufficient. Be sure they are competent men, warmly dressed, relieved frequently, are thoroughly instructed, and have good communication with the bridge.

The use of running lights in reduced visibility is advised.

The officer of the deck must see that a suitable degree of water-tight integrity is maintained and that the required backing power is available. This might mean additional boilers must be lighted off.

Position buoys will be prepared for streaming by all vessels except submarines, when thick weather is encountered. The length of the towline should be adjusted so that the buoy will tow 10 yards ahead of the bow of

the following vessel in the formation when at standard distance or the distance prescribed at the time. If one position buoy is being towed, a second position buoy will be kept ready for immediate streaming.

Bridge radio maneuvering circuits and supersonic and radio direction finders will be manned and operated as directed. The use of radio and supersonic direction finders may be of great assistance in preventing collision and in regaining contact and position.

War-time procedure.—In time of war it will not always be prudent to use searchlights, sonic depth finders, supersonic direction finders, or the whistle. The officer in tactical command should therefore issue appropriate instructions in regard to their use.

Peace-time procedure.—The following normal peace-time procedures for the simple formations and for the compound formations are applicable to all types of vessels except:

(a) Submarines will keep searchlights manned and ready for instant use in case of emergency.

(b) Submarines will not use position buoys.

(c) Destroyers and light mine layers will follow the procedures given unless directed otherwise by the officer in tactical command or type commander, who may direct other procedure, such as to close distance so that the stern or wake of the vessel next ahead when in column is sufficiently visible to permit maintaining station without the use of the position buoy. In this case the officer in tactical command or type commander should prescribe that position buoys will not be used and whether or not searchlights are to be used. If searchlights are to be used, he should indicate whether they will be used to illuminate the stern, wake, or elevated to such position that the searchlight beam may be used as a marker.

When formation is column, the procedure is as follows:

WATCH OFFICER'S GUIDE

Position buoy.—Each vessel will put over a position buoy unless otherwise ordered. The position buoy will not be hauled in without previously notifying the vessel next astern unless she is clearly visible.

Searchlights.—Each vessel will keep an after searchlight trained on her position buoy.

Station keeping.—When the vessel next ahead is invisible, station will be kept on her position buoy. Even-numbered vessels in the column will keep this buoy abreast of their stems and to starboard at a distance of one-half the vessel's beam. Odd-numbered vessels in the column will keep this buoy in a corresponding position to port. (This formation is not column open order.) When making a change of course by head of column change, successive movement, the position buoy will be kept just ahead of the stem. If the position buoy is lost sight of, it may sometimes be located by listening for it, preferably from a position on the forecastle. If the buoy is not located, the ship ahead should be approached cautiously, while noting the bearing of her whistle and watching carefully for any indications of her wake. If a vessel believes herself considerably out of station, great care must be exercised in regaining station. If a considerable deviation from the prescribed course appears necessary, the vessel next astern should, if practicable, be informed.

Fog whistle.—When steaming on a steady course the fog whistle will be sounded by all vessels in succession, beginning with the leader. The signal will be that prescribed by the rules for preventing collisions.

Changes of course.—When changing course by a head of column change, successive movement, routine sounding of the fog whistle to denote a vessel under way will be stopped temporarily by vessels nearing the turning point. Each vessel, as she puts over her rudder to make the ordered turn, will sound the prescribed signal—one short

blast if turning to the right or two short blasts if turning to the left.

When formation is line.—The following procedure is prescribed if vessels encounter thick weather when in line and if for any reason they are unable to form column on the approach of thick weather:

Position buoy.—Each vessel will put over a position buoy unless otherwise ordered.

Searchlights.—During day a forward searchlight will be kept trained in the direction of the bridge of each adjacent vessel. At night an after searchlight will be kept trained in the direction of each adjacent vessel but well abaft her bridge.

Station keeping.—If a vessel believes herself considerably out of station, great care must be exercised in regaining station. If the location of other vessels is not known, a vessel out of position should normally steer the course of the formation.

Fog whistle.—When steaming on a steady course, the fog whistle will be sounded by all vessels in succession, beginning with the guide. The signal will be that prescribed by the rules for preventing collisions.

When formation is line of bearing.—The procedure prescribed for line will be followed if vessels encounter thick weather when in line of bearing and if, for any reason, they are unable to form column on the approach of thick weather.

Speed in a fog is the joint responsibility of the commanding officer and the officer of the deck. If the formation speed is in excess of a safe speed, the commanding officer should be advised.

STATION KEEPING AT NIGHT—DARKENED

Generally speaking, keeping station at night with ship darkened is not as difficult as it would seem. It is an un-

WATCH OFFICER'S GUIDE

usually dark night when the loom of a ship ahead, or its wake, cannot be seen at normal distance. The use of a wake light, or screened speed light, makes it even easier.

The first essential of station keeping when darkened is constant vigilance and efficient lookouts. The officers and the lookouts must have the best night glasses available, and avoid blinding their eyes with flashlights, etc.

The second essential is confidence or nerve to keep the ship well "closed up." There is not much risk of collision with ships in sight. It is the ships that have been out of sight that are dangerous. Watch the wake of the ship ahead and estimate the distance whenever possible by position of the jack-staff light with reference to it.

Always be ready to turn on running lights in an instant.

DISTANT STATION KEEPING

The officer of the deck of a ship acting as a station unit in a fleet disposition or on similar duty will often have to keep station at considerable distance from other units. In this case the position is generally approximate, and the ship is free to make adjustments of position with larger changes of course or speed than when in a close formation.

In distant station keeping always keep the assigned station and actual position plotted on the maneuvering board and use it to determine the course and speed in adjusting station. Due to considerable distance from the guide, errors in bearing develop and can be corrected rather slowly, and ranges may not be accurate.

MANEUVERS IN CLOSE FORMATION

GENERAL

In station keeping, the officer of the deck is concerned with accurately maintaining a prescribed situation. In maneuvers he is concerned that his ship does its part in a

change of situation. Station keeping is more or less passive and static, maneuvering is distinctly active. Handling the ship in maneuvers is probably the greatest responsibility that can be given a young officer. Its variations and ramifications extend to the ultimate object of our fleet, the destruction of the enemy.

The opportunities for officers to practice handling and maneuvering large ships are limited, and for this reason no chance for experience or information along this line should be neglected. Much can be learned by watching other officers, especially those who have gained reputations for skill in handling ships. A great deal can also be learned by watching those not so skillful and by deciding in one's mind the causes of their failure or lack of skill. Handling destroyers and smaller craft is excellent training, and an officer who has developed his judgment, his confidence, and his seaman's eye in destroyers is not likely to fail later when it comes to handling larger ships.

In maneuvering, when one movement is closely followed by the signal for the next, a ship out of position must regain it as quickly as possible by radical changes of course and speed. Until all ships are approximately in position, the signal for the next maneuver cannot be made. The importance of regaining position quickly is obvious. An alert and vigilant officer of the deck, applying the rules of station keeping, should never have his ship so badly out of position as to delay maneuvers.

In all maneuvers in formation it is of primary importance that the ship's movements be closely co-ordinated with those of the other ships in formation, in accordance with standard tactical instructions. In distant or semi-independent maneuvers (covered in the next section), the ship is so located (as for instance when a station unit in a widespread fleet disposition) that the primary consideration is directness and dispatch in proceeding from one position to another, and it is necessary only in a general

way that one consider the movements of the other units.

Assuming that the officer has the technical knowledge, combined with sufficient experience and confidence to be entrusted with the deck during maneuvers, the additional quality which will help him most is that previously emphasized, namely, forehandedness.

Be alert, be prepared, try to be one jump ahead and know what is coming next. Unessentials (routine and the like) must not divert the officer of the deck. When things get more active, concentrate more on handling the ship. Make the bridge keep quiet. Always have an alert eye on near-by ships, particularly in maneuvers where, if an adjacent ship makes an error in acting on a signal, it will be detected instantly.

CLOSE ORDER MANEUVERS

Close order maneuvers include changes in speed, distance and interval, bearing, order, formation, and course—also joining and leaving formation and the emergency maneuvers. While in general the fleet does not attempt elaborate maneuvers in fog or darkness, changes of course and speed are frequently necessary under such unfavorable conditions.

Changes of speed.—The important rule in speed changes is to ring up the new speed immediately on execution of the speed signal, and to be prompt and accurate with all speed indicators in use. This rule assumes that the ship is approximately in position. Like all rules of maneuver, it should be used with the prime virtue of common sense. If well inside distance and not pressed by the ship astern when an increase of speed is executed, or if well outside distance (from guide) and not too close to ship ahead when a decrease of speed is executed, delay the execution and change of speed indicators an appreciable interval, in order to profit by the change of speed to more promptly regain position.

Changes of distance.—In column, changes of distance involve only changes of speed. Whatever the change involved, it must be executed with exactly the same snap and precision as if it were a direct speed signal. Experience will teach an officer when to resume former speed. In general, however, err on the side which avoids getting behind station. After slowing to increase distance, going head too late is a more common error than going ahead too soon.

When in formation other than column, changes of distance involve change of course and generally of speed also. For large changes of course and speed use tables or the maneuvering board. In practice, however, remember that radical changes of course reduce speed, and may embarrass adjacent ships. As a general rule, use changes of course somewhat less than those required by an exact solution.

Changes of bearing.—A change of bearing without changes of distance is a common maneuver when in close formation. Though in theory a relative movement problem, in practice the exact solution is so modified by the effect of advance and transfer of ships when close to each other and by lag in speed, that this maneuver as much as any other is a question of experience and judgment in speed, course, and distance. For large ships which use full speed of one-eighth more, tables accompanying the formation pennant signals in the signal book give good combinations of course and speed. For faster ships using full speed of 5 knots more, the problems are in theory different for each standard speed.

While there is no substitute for experience and the trained seaman's eye in these maneuvers, it is important to have a definite and sound procedure upon which to base one's decision as to course and speed changes.

If there is time before the signal is executed, obtain the exact solution from the maneuvering board, then decrease

the exact change of course as may be necessary, due to the proximity to guide and effect of advance, transfer, and speed lag. The exact solution chosen should be one which preferably uses the usual speed divisions, full, two-thirds, etc., and course changes which under the circumstances can be reduced to not more than 30 degrees.

When pressed for time, roughly visualize the required direction of relative movement. This gives the direction to change course and a basis for the speed. Then estimate the change of course (erring on small side).

Whenever a maneuvering board is used, continue to plot every minute or so the ship's advance along the relative movement line, adjusting speed or course as necessary.

Changes of bearing and distance are relative movement problems in the solution of which one must avoid radical changes of course, especially when in close proximity to other ships.

Changes of order.—When a ship is ordered to exchange position in formation with another ship:

(1) If in column the ship ahead sheers out to the right and drops back. The rear ship sheers out to the left and goes ahead. The whistle is used instantly the signal is executed to show your change of course. The proper change of course for each ship is about 10 degrees.

(2) If in line or line of bearing the *left* ship (with the other ship on the starboard hand), is responsible for maneuvering to pass astern of the other ship before that vessel leaves her position. The *right* ship waits until the maneuvering ship has passed clear under her stern and then maneuvers to the new position. The whistle and speed indicators are used smartly to indicate the maneuvers. The left ship should drop back only the minimum amount necessary.

The order of ships is inverted only when in column. The signal indicates on which side the rear ship will sheer

out. The guide should be run up smartly by the rear ship. If not rear ship, be sure to go ahead in ample time to avoid getting behind station, and in doing so measure the distance as far up the column as possible.

Change of formation.—In addition to changes of formation by changes of bearing, course, or distance, there are many standard and special formations, designed to meet the requirements of certain operations, types of ships, etc. The order to take one of these formations from another formation often involves maneuvers specially designed to meet existing conditions and definitely set forth in appropriate tactical instructions. Maneuvers of the battle line and of destroyer squadrons are examples of this class of maneuvers.

The officer of the deck under such conditions must know the maneuvers involved and must have at hand the publication which governs in order to check his knowledge. To emphasize by repetition: *The officer of the deck must know thoroughly the tactical instructions for his type of ship.*

Change of course.—The commonest maneuver, but not always the simplest, is a change of course. For fleet dispositions and compound formations, a change of course may be a rather complicated maneuver, but for the officer of the deck, such maneuvers, while sometimes involving a change of speed as well as of course, generally reduce themselves to either a simultaneous change of course (by turn pennant) or successive changes of course or column movements by course pennant. A variation comes occasionally in ripple movements in which special instructions govern the manner of making the change of course.

Simultaneous changes of courses are frequent, both in meeting maneuvering requirements of the fleet and as training in ship handling. With homogeneous ships in good position, the important thing is to be exact in executing the signal, in handling the rudder, and in steadying on

the new course. The rudder of the guide is put over when the signal itself is executed, not when the order to execute is given, and the rudder is handled in accordance with standard procedure. If ships are not homogeneous, all information available on tactical qualities of the ship in comparison with those of the guide and other ships in formation must be considered. In all turns check the bearing of the guide as the turn progresses, with a view to detecting promptly any tendency to gain or lose bearing.

In practice, ships do not maintain perfect position, particularly when making frequent simultaneous turns, and the officer of the deck must know how to adjust the handling of a turn to improve his position. This is largely a question of experience in visualizing the situation and looking ahead. Of course, any such adjustments must consider adjacent ships on both sides.

In column.—For a turn of 90 degrees to the right, if behind and somewhat to the right of position, a small delay in executing the turn improves the position. On the other hand, if correct in bearing but inside distance, use a little more than the normal rudder, put it over rapidly, and meet her a little late, but with more rudder.

In line.—For a turn of say 60 degrees to the left, if inside distance from the ship on the left, but behind bearing, a small delay in execution or the use of a little less rudder will tend to correct position.

In line of bearing.—If the turn is through column to another line of bearing, and the ship is behind bearing before the turn, she will be ahead of bearing after the turn. Start the turn slowly with easy rudder and finish with hard rudder. If ahead of bearing when beginning the turn, reverse the procedure to advantage in regaining position.

There are dangerous possibilities when maneuvering with simultaneous turns, which demand that the officer of the deck be especially vigilant concerning adjacent ships.

As long as ships attempt the correct turn, there is generally not much danger of collision, but every now and then when in line or line of bearing some ship will start to turn, or at least start the rudder, in the wrong direction. This gives the perfect set up for a collision. So never forget these rules:

(1) Check and recheck the interpretation of turn pennant signals.

(2) In line or line of bearing, watch the ship toward which the turn is made, to detect the first sign of her turning in the wrong direction.

Changes of course in succession (column movement).—One of the commonest maneuvers is a change of course when in column, ships turning in succession.

The guide follows exactly the standard procedure for handling the rudder.

The whistle is usually used in these changes of course. During good visibility, if making a turn of more than 20 degrees without previous signal, the column leader sounds the whistle simultaneously with putting over the rudder—one short blast if turning to starboard and two short blasts if turning to port. At night or in a fog, these whistle signals are made for all turns, whether with or without previous signals, and they are repeated by each ship in succession as she puts over her rudder.

In its normal form this maneuver involves turning accurately in the same water as the ship ahead, it being assumed that the ship ahead is in proper alignment with the head of the column. In practice these conditions do not always exist, and particularly in a long column there may be a sagging away at the turning point, due to cumulative errors of ships in turning slightly outside. Then, too, the ship just ahead may turn too soon or too late. In all these latter cases, the problem is not to turn in the same water as the ship ahead, but to turn at a point which will place the ship astern of the guide after the turn.

The safety of the ship and that of adjacent ships in any turn must be considered.

If in column, open order, ships sheer into column without special signal, immediately on receiving any signal which when executed will require a change of course. Column open order is resumed by each ship without signal when the second ship astern of her has completed its turn.

Approaching the turning point.—When approaching the turning point of the next ahead, be careful to steer the exact course. The stern of the next ahead, when it starts to turn, will appear to be thrown out, and the inexperienced steersman will have a tendency to steer out after it. If he does so, he will be outside and behind on the turn. It is important that the ship should reach the turning point, not only in correct position but well steadied on her course. If, at the instant that the rudder is put over, the ship has already a slight sheer one way or another, the effect of the rudder will be noticeably accelerated or retarded, and the ship will depart materially from her normal turning circle. The ship ahead will lose speed on her turn. However, do not slow for that reason, for the ship ahead will pick up her speed immediately on finishing the turn.

To turn in the same water as ship ahead.—As the turning point is approached, it will generally be possible to judge whether or not ship ahead is making an accurate turn. If so, attempt to turn in the same water.

Observing the "kick."—During daylight, the exact moment at which to put over the rudder is best determined by eye as a result of previous experience. The ship ahead will leave a "kick" or swirl in the water at the point at which her rudder was put over. Sometimes this is difficult to see, particularly if the speed is low and the rudder angle small. Special care must be taken in watching for this kick when the visibility is poor or when there is a sun glare on the water ahead. From the kick, the wake of

the next ahead gradually builds up in the form of a line of white froth, extending in a broad curve around to her stern. In cases where the actual kick is barely distinguishable, it may frequently be identified by this white water.

When to turn.—If the turning point has been correctly approached, the kick of the next ahead will be observed by the officer of the deck to be slightly on his outboard bow. When it reaches a predetermined position abreast the ship, usually a trifle abaft the stem, the order to put over the rudder should be given. The exact point varies for individual ships and is determined by an examination of their tactical characteristics and by experience.

Observations while turning.—After the rudder is put over, the ship will usually continue to forge ahead without turning appreciably, for about a ship's length. Then, if the turn has been correctly timed, she will follow around, leaving the wake of the next ahead about half of the ship's beam on the outboard bow. After the ship starts to turn, the point where the wake of the next ahead cuts the jack staff may be observed. In smooth water, if this point draws downward, the ship is going outside and will need more rudder. If it tends to rise, the ship is turning inside and the rudder should be promptly eased a trifle.

The rudder, once put over, should not be altered unless in so doing the turn or position can be improved without embarrassment to adjacent ships. If altering the rudder during the turn may interfere with adjacent ships, complete a standard turn and correct the position later.

Steadying after turn.—As the end of the turn is approached, the rudder should be so handled that the ship is steadied on the new course which, if the maneuver is correctly executed, will place the ship on the proper bearing astern of the leader. If there are several ships ahead, it will be easy to judge the proper point by eye. It is unseaman-like and may be dangerous to permit the ship to

swing beyond the correct course and to have to bring her back again. If the course of the column leader is unsteady, such an error may be avoided by taking true bearings on her during the latter part of the turn and steadying up when she bears the reverse of the signaled course.

Alterations of speed during a turn.—The revolutions of the engines should ordinarily not be altered during a turn in formation, as the inboard and outboard engines will be running at different speeds, and accurate changes of a few revolutions are impracticable.

However, one should not hesitate to make radical changes of speed on one or all engines, to meet an emergency or to improve the turn or position when in so doing adjacent ships are not embarrassed.

Turning inside.—If the ship turns inside, she will gain distance on the next ahead, due to her having cut the corner. If the rudder is eased, this will cause her to gain distance still more. Easing the rudder is, therefore, permissible only when the distance from the next ahead is such that these factors will not cause the ships to come dangerously close. A common error in such cases is to ease the rudder too much, with the result that the ship crosses the wake of the next ahead and goes outside. This is avoided by watching closely for the first indications of turning inside and by promptly easing the rudder a sufficient amount to check the rate of swing. As soon as this effect has been produced, the rudder should ordinarily be again put over to the standard amount.

The only really dangerous situation in turns arises when a ship is somewhat too close to the ship ahead and inside on a large turn. The moment comes when one must choose between more rudder, continuing the turn safely inside by slowing, stopping or even backing the inboard engine if necessary—or the alternative of easing the rudder and passing safely under the stern of the ship ahead, and outside her wake. In this situation, resolve any doubts

in favor of continuing to turn inside. It is safer and the ship will eventually regain position quicker. To hesitate too long and then ease the rudder to get outside, the ship may shoot ahead while her bow is still inside the stern of the ship ahead, with possibilities of collision. In any such case she will end up far behind position.

Turning outside.—If the rudder is put over a trifle too late, turning outside may sometimes be avoided by increasing the rudder angle. The ship will have a longer path to travel and the use of a large rudder angle will slow her speed and the screw current of ship ahead on her bow will tend to retard her turning. If she began the turn somewhat close to the ship ahead, this may improve her position. But if in position or behind, on starting the turn she will possibly embarrass the next astern. In this situation avoid using full rudder or be prepared to make full speed on the outboard engine.

A vessel whose bow has crossed the wake of the column leader shall take effective steps to avoid swinging beyond the new course, and shall steer parallel to the column without attempting to edge in to her position until her next astern shall have completed her turn.

This rule is mandatory at all times and is necessary to avoid danger of collision. The ship in question will have traversed a longer track than standard, and her speed will have been reduced both by the use of excessive rudder and by encountering the resistance of the wake current of the next ahead on her inner bow. Should she now attempt to sheer into column, she will throw herself across the bow of the next astern, resulting in danger of collision or at least forcing that vessel to take drastic steps to avoid her. This will cause the ship astern to turn inside of her correct track, with the possibility that the remaining ships of the column will be thrown into confusion. A ship which has turned outside should increase her speed so that she may draw abreast of her proper position and

be ready to sheer in promptly when the next astern has completed her turn.

Turning at night or in fog.—At night or in a fog, each ship sounds her whistle when the rudder is put over. The officer of the deck should have informed himself of the number of seconds which the ship will require to traverse the distance to the next ahead at the speed which is being made, and should note the time of the whistle of the next ahead. If at the expiration of this time interval he has been unable to make out any appearance of the wake of the next ahead which would cause him to alter his judgment, he should turn at this time, taking care that the proper blasts are sounded at the instant that the rudder is put over.

Turning on time.—The above method of turning on a time interval is sometimes used during daylight, but it is not recommended if the wake of the next ahead can be seen. Though it is theoretically accurate, practically there are always some points such as variation from the exact standard distance, irregularities of speed, etc., which have not been taken into consideration in the computation. The time method seldom gives the best results in daylight. Its use substitutes computation for nautical judgment and thus retards development of this quality. It may be used as a check by inexperienced officers, but should not be relied upon after experience in turning by eye has been gained.

Counter-marching.—If the turn to be made is 120 degrees or more, it is particularly necessary that the wake of the next ahead should be followed accurately. Turning inside will cause the distance from the next ahead to be reduced rapidly, frequently to such an extent as to cause danger of collision. It is, therefore, of great importance that the rudder should not be put over prematurely. If it is seen early in the turn that the ship is going to turn inside, the rudder may perhaps be eased

and the turn corrected in time. However, if the bow of the ship gets pointed inside of the stern of the next ahead, it will usually be impossible to ease the rudder, as this would cause the ship to pick up speed, and the distance to the next ahead will already be too close for comfort. In this case the rudder must be put hard over, stopping the inboard engine if necessary, or, in extreme cases, backing full on one or both engines. As soon as collision with the next ahead has been avoided, consideration must be given to the ship astern. For this reason it is highly undesirable to stop or back engines unless strictly necessary, and it is better, if possible, to turn sharp to a position on the inner beam or quarter of the next ahead, taking a parallel course and reducing speed gradually to drop back into position.

If the turn is started too late and the bow crosses the wake of the ship ahead, it will generally be impracticable to bring the ship back without jamming up the next astern, which must be avoided at all costs. In this case it is best to take full speed immediately and to follow around parallel to the wake of the next ahead but just outside of it.

To turn after a ship turning badly.—Under some conditions, particularly in low visibility, it is not possible to determine how the ship ahead turned with reference to the column ahead of her. In such case follow accurately the turn of the ship ahead. Under favorable conditions, however, it may be possible to see that the ship ahead definitely turned too soon or too late, or it may be apparent that there is an accumulation of small errors (almost invariably outside errors) which has moved the turning point considerably beyond where it should be.

In either case boldly make an estimate of the correct turning point to bring the ship dead astern of the guide, and make the turn accordingly, without regard to the other ships, except, of course, the ever-present considera-

tions of safety. A well executed corrective turn of this kind will often save much trouble in regaining position.

As in other maneuvers the turn in succession may often be used to advantage in correcting the position. When well behind station, boldly cut the corner. If too close, don't turn too soon, turn a bit late with full rudder.

SPECIAL MANEUVERS

In addition to the normal maneuvers in formation, which concern changes in speed, distance, bearing, order, formation, and course, there are other situations which require an officer to handle his ship in close co-ordination with other ships of the formation. Such maneuvers include forming up, joining and leaving formation, coming within hail, and the emergencies of sighting submarines, breakdown, and man overboard.

Forming up.—When a group of ships without formation is ordered to take formation, natural order and standard distance will be assumed unless signaled to the contrary. The ship which is to be the guide hoists the guide flag and assumes the prescribed course and speed. Other vessels take position with alacrity. The Rules of the Road apply between ships which have not yet reached their positions, but these should so direct their courses as not to interfere with ships which are already in position.

Joining a column formation.—A ship joining a column from an initial position other than nearly astern of the column should take course and speed so that, after turning approximately to the guide's course, she will be about 300 yards (for large ships) abreast her position in column. From this position she may then sheer into column. Where a large change of course is involved in rounding up, this margin of safety should be 400 or 500 yards.

The maneuvering board should be employed for selecting proper combination of course and speed, and for plot-

ting successive positions of the ship in relation to the ship ahead of her new position.

In joining a formation other than column, the problem must be solved under the special circumstances obtaining, having regard for the following principles:

(a) The ship should be brought smartly into her position.

(b) The ships already in formation must not be interfered with.

(c) Speed must be picked up in ample time to prevent straggling.

In leaving formation in accordance with orders, if there is no other reason for turning one way rather than the other, turn in accordance with one's number in column, otherwise turn in most convenient and expeditious direction for carrying out the orders or plans. In all cases use the whistle and make a definite change of course the instant the signal releasing or detaching the ship is executed.

In coming within hail, or otherwise approaching a ship in formation to communicate orally or by boat, a vessel should keep approximately on parallel headings but with her stern well clear so she can back clear.

Destroyers deliver and receive mail from large ships in formation under way. With a battleship at six knots, a destroyer on the same course can confidently place her bow close under the large ship's quarter abaft the screws and exchange mail by line. The screw current of the large ship will safely hold off the destroyer's bow.

BREAKDOWN

No precise instructions are prescribed for the case in which a vessel suffers a breakdown in the midst of performing an evolution or maneuver. The vessel broken down should maneuver, to the extent possible, to cause the least interference with other vessels. Vessels adjacent

to or astern of the vessel broken down must be governed by the particular situation existing and must take appropriate action to avoid collisions.

A position clear of the formation should be taken by the vessel broken down as soon as practicable. The nature of the casualty should be reported to her unit commander as soon as practicable after the disabled vessel is clear of danger of collision with other vessels. A further report will be made when the extent of the damage is known and the time to effect the repairs can be estimated. Unless otherwise directed, the vessel will rejoin the formation when repairs have been made. Until ready to rejoin the formation, she should endeavor to follow the general movement of the other vessels but must keep clear of vessels maneuvering. Her position in the formation will be left vacant unless her unit commander directs otherwise.

Breakdown signal.—When in company with other vessels, a vessel broken down will make the appropriate one of the following signals:

- (a) Day.—Break the five flag at the fore truck.
- (b) Night.—Display two red lights arranged vertically.
- (c) Fog.—Make the danger signal (four or more short toots) on the whistle in addition to the appropriate day or night signal above.

If the circumstances are such, day or night, as to involve danger of collision with other vessels, the vessel broken down will also make the danger signal (four or more short toots) on the whistle.

If sheering out of formation, the direction of the turn being made will be indicated by the appropriate number of blasts on the whistle, following the signal indicating breakdown.

When the formation is column.—

- (a) Vessel broken down:
 - (1) Make the appropriate signal.

(2) If an odd-numbered ship in the column, sheer out to the right; if an even-numbered ship in the column, sheer out to the left, unless in either case compelled by necessity to sheer out in the opposite direction.

(b) Vessels astern of the vessel broken down maneuver to avoid her if danger of collision exists.

(c) Vessels ahead of the vessel broken down stand on at the prescribed speed unless otherwise directed.

When the formation is line.—

(a) Vessel broken down:

(1) Make the appropriate signal.

(2) Maintain the course if possible to do so. If unable to hold the course, maneuver to avoid adjacent vessels on each beam to the extent possible.

(b) Other vessels hold the course. If the vessel broken down is unable to maintain the course, maneuver to avoid her if necessary.

When the formation is line of bearing.—

(a) Vessel broken down:

(1) Make the appropriate signal.

(2) Maintain the course if possible to do so. If unable to hold the course, endeavor to sheer out of position on the side toward the advanced flank of the line of bearing. Maneuver to avoid adjacent vessels to the extent possible.

(b) Other vessels hold the course. Maneuver to avoid the vessel broken down if she is unable to maintain the course or sheers out of position on the side toward the retired flank of the line of bearing.

When the formation is column of evolution, or line of evolution units, or line of bearing of evolution units.—

(a) Evolution unit to which the vessel broken down belongs.—The procedure is the same as prescribed for a simple column, or simple line, or simple line of bearing, depending upon the formation in which the evolution unit happens to be.

WATCH OFFICER'S GUIDE

(b) Other evolution units stand on at the prescribed speed unless necessary to maneuver to avoid the vessel broken down.

Exceptions to the above.—

(1) When the formation is column of evolution units and when all vessels of the formation are in column on one line of bearing, the procedure is the same as prescribed for a simple column.

(2) When the formation is line or line of bearing of evolution units and when each evolution unit is in column, the vessel broken down will, when possible to do so, sheer out of her column on the side which will cause the least interference with other evolution units.

MAN OVERBOARD

No precise instructions have been or can be prescribed for the case in which a man is lost overboard when vessels are in the midst of performing an evolution or maneuver. The vessel losing the man overboard should make the prescribed signals. Vessels astern or adjacent to the vessel losing the man overboard must be governed by the particular situation existing and must take appropriate action to avoid collision and to rescue the man.

Evolution units approaching the area where the man is supposed to be should be maneuvered by signals from their commander to avoid vessels stopped or maneuvering to rescue the man overboard.

There are two prescribed procedures for man overboard, the normal man-overboard procedure and the war-time man-overboard procedure.

The normal man-overboard procedure involving stopping, firing the signal gun, lowering boats, and at night showing lights.

Normal man-overboard procedure will always be used in time of peace.

Signals.—The following signals will be made:

(a) By the vessel losing the man overboard:

(1) The appropriate one of the following signals:

(a) Day.—Break the "FIVE" flag at the fore truck and half-mast it immediately, but not below the smokepipes.

(b) Night.—Display the two pulsating red breakdown lights.

(c) Fog.—Make the equivalent of the "FIVE" flag by searchlight pointed at the vessel next astern, or pointed at adjacent vessels if not in column.

(2) Fire the signal gun.

(3) Toot the whistle for 10 seconds, making the toots in groups of 5 toots each.

(b) By all vessels in column astern of vessel losing the man overboard:

(1) Toot the whistle for 10 seconds, making the toots in groups of 5 toots each.

(2) Fog.—Make the equivalent of the "FIVE" flag by searchlight pointed at the vessel next astern, followed by the call of the vessel losing the man.

When formation is column:

(a) Vessel losing the man overboard:

(1) Drop life buoys.

(2) Stop engines.

(3) Make the prescribed signals.

(4) Hold the course except if rear vessel of the column, in which case maneuver to pick up the man overboard.

(5) Night.—Train searchlights on the spot where the man overboard is believed to be.

(b) All vessels astern of the vessel losing the man overboard:

(1) Stop engines.

(2) Drop life buoys, if buoys can be dropped closer to the man overboard than buoys already in the water.

(3) Make the prescribed signals.

(4) Make turn of 10° from the course of the column (unless in narrow waters). Even-numbered ships in the column turn 10° to the left, odd-numbered ships in the column turn 10° to the right.

(5) Night.—Vessel which is closest to the spot where the man is believed to be, illuminate the area with her searchlights when the lifeboats approach the area.

(6) The next four ships astern lower boats if advisable.

(c) All vessels ahead of the vessel losing the man overboard stand on at the prescribed speed unless otherwise directed.

When formation is line or line of bearing:

(a) Vessel losing man overboard:

Same as for column, except maneuver to pick up man, turning toward advanced flank when clear. All other ships maintain course and speed.

SEMI-INDEPENDENT MANEUVERS

In the modern fleet disposition, the station units are generally at considerable distance from the guide and often from each other. As a result any maneuvering is considerably different from those in close formation.

Fleet maneuvers involve changes of course or speed, changes of front, changes of axis, and changes of formation (including deployments).

The officer of the deck of a ship acting as a station unit must be familiar with the *General Tactical Instructions* as regard fleet maneuvers, in order that he may properly and promptly decide how the maneuver concerns his ship. The maneuver may be merely a change in fleet speed, or a change of course by station units, but more often it will involve a change of position for the ship. The ship or unit goes to its new position by the most direct and expeditious method, having due regard for other station units likewise proceeding to their new posi-

tions. Under such circumstances the maneuver is a relative movement problem. In many fleet maneuver problems, the solution requires the time for the maneuver as well as course and speed, since the arrival at the new position can be checked only by elapsed time.

When in a fleet disposition or other large scale formation the officer of the deck should always keep at hand on the maneuvering board a sketch of the fleet disposition with the fleet guide at the center, indicating general position of other units and his position, actual and assigned. As soon as a maneuver involving a change of position is received, he plots the new position and the true direction of his required relative movement to get there. With this he determines the best available course and speed to bring him to his new position. He then determines the time to reach his new position and unless he has better position data, he resumes fleet course and speed on the basis of elapsed time.

In maneuvers of this kind it often happens that the ship is not free to proceed by the direct relative movement line to the new position. It may be necessary to choose a course to clear intervening vessels, and having done so to take a new course from that point to the new position. The situation occurs frequently in the case of destroyers and cruisers which must not interfere with the battleship or carrier units.

There is another type of independent maneuver for which the officer of the deck may be responsible. The ship may be assigned as a target, as a constructive unit, as a radio calibration vessel, or otherwise, so that the movements will meet certain conditions as to distance, relative movement, etc., with reference to some base unit. Here again the officer of the deck must know his relative movement of ships, and be entirely familiar with the maneuvering board to solve such problems.

Chapter VI

SAFETY OF PERSONNEL AND MATERIEL

As indicated in the preceding chapters, the primary responsibility of the officer of the deck is the safe navigation and safe, efficient handling of his ship. But he has many other serious and important responsibilities, differing in degree. These may be grouped as follows:

Safety of personnel and materiel.

Assistance to ships, boats, or planes in danger or distress.

Smartness of maneuver and appearance.

Comfort and contentment of crew.

Efficient routine and a good log.

The remaining chapters of Part I will cover briefly these subjects.

While, in navigating and handling his ship, the officer of the deck has in his hands at all times the safety of the ship and all on board, he is also concerned more specifically with the safety of individuals and of materiel on board. In certain emergencies, such as collision, stranding, explosion, and fire, this responsibility extends to the safety of the whole ship.

The following are some of the important items to be kept in mind:

COLLISION, STRANDING, OR EXPLOSIONS

These are ever present possibilities and you should be ready to meet such emergencies at all times and as completely as existing conditions permit.

Article 1305 (4), *Navy Regulations*, requires that

"During an action, or when at sea, in fog, or at night, and at other times when sudden collisions may occur, as many of the water-tight doors, hatches, and valves as practicable shall be closed, taking into consideration the necessities of the occasion and the requirements of the officers and crew."

The officer of the deck should strictly enforce this regulation. "At other times" includes maneuvers in close formation, war conditions, and when in waters where stray mines may be encountered.

The officer of the deck is responsible for making emergency signals and immediately initiating all action required by the ship's damage control bill. In case of actual collision the officer of the deck must keep his mind on the main idea of safety of the ship and her people. If the bow cuts into the other ship and there is not too much motion on the ships, do not back clear instantly. Holding the bow there may gain time for both ships.

Collision quarters should not be sounded during action. At any other time it is sounded for actual or threatened collision, stranding, torpedo hit, explosion, or carrying away of any sea valve.

Calls and procedure.—

General alarm.

One long blast on siren (signal to close water-tight doors).

Close water-tight doors, hatches, ports, openings, etc.

Start howlers.

Sound "assembly" on bugle.

Notify captain, executive officer, engine-room, and telephone control.

See that all hands go to station quietly on the double.

Have collision mat ready (if furnished).

Word passed by boatswain's mate.

Abandon ship may follow collision; it may require the crew to go overboard without waiting to get out the

boats, or it may permit the loading of boats with men and stores.

The object of abandoning ship without providing is to get every man clear of the ship before she goes down, with life jackets for all, with as much buoyant material as possible from the ship for construction of rafts, and with all boats clear of the ship to assist in saving personnel.

All hands must put on and secure life jackets whether providing or not providing. It is important that all ties be secured, particularly the collar. In case of becoming unconscious, this collar keeps the face out of the water. The officer of the deck should see that his men on watch on the bridge put on their life jackets.

Calls for abandoning ship, without "providing".—

General alarm.

"Abandon ship" on the bugle, followed by "double time."

All boatswain's mates pipe "All hands abandon ship."

Boatswain's mates pipe "All hands on deck." This word will be passed below when the time comes for engineers and others on watch to leave their stations. This word will not be passed at drill.

Boatswain's mates pipe "All hands overboard." This will be the signal for all hands to go overboard without waiting for boats. It may be passed at any stage of the proceedings when it is seen that the ship is sinking too rapidly to embark in boats. This word will never be passed at drills.

Calls for abandoning ship, "providing".—

General alarm.

Provision call on the bugle, followed by "Abandon ship" call.

Boatswain's mates pipe "All hands provide and equip for abandon ship."

Stranding.—In case of stranding, the captain will

promptly take charge but the officer of the deck may have to decide on the instant what to do with the engines.

The first impulse of an officer finding his vessel stranded is usually to throw the engines to full speed astern. This may be the right thing to do, but it is not always so. If the ship has struck a rock, the chances are that she will have a hole in her bottom, and to back off may result in sinking her without leaving time even for saving life. If aground on a soft bottom, to work the engines either way may result in disabling them by filling the condensers with sand or mud. Again, where a single-screw steamer is aground forward, backing the screw may slue her stern around and put her on the beach throughout her full length. These points should be taken into consideration in deciding whether or not to back the engines immediately.

The watch officer should read from time to time Chapter XIX of Knight's *Modern Seamanship* on Stranding.

Fire.—In case of smoke, fire, or minor explosions, the officer of the deck is responsible for making the necessary emergency signals and initiating all action required by ship's fire bill, and remain in charge until relieved. During action, "fire quarters" is not sounded.

Calls and Procedure.—

General alarm.

Rapid ringing of ship's bell followed by prescribed strokes for indicating location.

"Fire quarters" on bugle followed by blasts to indicate location.

Word passed by boatswain's mate as to location of fire.

Inform captain, executive officer, engine-room, and telephone central.

See that men go to their stations on the double.

Under certain conditions it is advisable to change course and speed to reduce relative wind.

Enforcing safety precautions.—It is most important

that the officer of the deck should do everything possible to prevent emergencies arising. Various forms of safety precautions are prescribed with this in view; other precautions are matters of experience and common sense.

Enforce to the letter all precautions concerning handling of ammunition, fuel oil, gasoline, gas containers, etc. Constant vigilance is particularly necessary in gassing boats and planes.

Needless risks.—Keep a sharp lookout for men needlessly taking risks. Do not allow men unnecessarily aloft, and if necessary to do so in bad weather, see that they are properly tended and secured. Keep men off the decks when there is a possibility of seas coming over. Remember that unusually large waves sometimes come along without warning, and a foot of water going over the forecastle will seriously hurt anyone in its path. Boat crews operating in swift currents should wear life jackets. Boats must not be overcrowded and there must be a life jacket for each person. Beware of allowing men to enter double bottoms and tanks without taking fullest precautions.

Be sure all men working at or over the side are properly tended and secured and wear life jackets. Despite all precautions, men are lost that way every year. One's vigilance might have saved them. The men do not like bowlines, nor life jackets—until they have been saved once.

Consideration of state of weather.—The state of the weather should have careful consideration at all times. If not properly prepared, sudden storms or squalls may not only wet the ship through, but do considerable damage before all is secured. The first thing to do in sudden rough weather is to close all the forward hatches and gun ports. After this has been done other details such as taking in awnings, closing hatches as may be necessary, putting extra lashings on boats, rigging extra life lines, and securing any other loose gear about the ships should be attended to.

Small ships especially should thoroughly secure for sea before leaving port, as securing a small ship in rough weather is a difficult and often dangerous task.

Securing the ship.—If it is dangerous or impossible to properly secure the ship when such a condition exists, do not hesitate to stop at once and then inform the captain.

*Chapter VII***ASSISTANCE TO SHIPS,
BOATS, OR PLANES,
IN DANGER**

The officer of the deck of a man-of-war should be the first to note any difficulties on the part of ships, boats, or planes in sight, and the first to render assistance. Furthermore, the ship may receive an SOS or be sent to assist a ship in distress, under conditions which will require all the resources of the ship in seamanship and fortitude. In these latter circumstances the officer of the deck will probably not handle the ship during rescue operations. He should, however, profit by observation, co-operation, and experience. All watch officers should from time to time refresh their minds by reading the following chapters of Knight's *Modern Seamanship*:

Chapter XIV—Part concerning rough weather.

Chapter XVIII—Rescuing the Crew of a Wreck.

Chapter XXI—Assistance by Public Vessels to Vessels in Distress.

It is not uncommon, particularly in areas where fishing boats and pleasure craft are numerous, to encounter disabled boats and other small craft. They may have difficulty in attracting attention, and it is good for the Navy, as well as for the rescued, if the vigilance of a ship gives an opportunity for timely assistance. The officer of the deck should report to the commanding officer all cases of heavy smoke, particularly in small craft.

Fire and rescue.—The importance and the ever present possibility of rescue work is indicated by the fire and rescue drill being one of the standard drills in all

ship's organizations. The officer of the deck is responsible for making the general signal if it is a drill, initiating all action required by the bill, and remain in charge unless relieved. The fire and rescue bill will be sufficiently flexible to meet varying conditions. In passing the word the officer of the deck should be definite as to just what organization is desired, the rescue detail, the first fire detail, second fire detail, or relief detail.

Calls.—

General alarm. (Omitted on some vessels.)

"Assembly" on bugle, "Double time." (Omitted on some vessels.)

Pass the word "Away fire and rescue party, first fire detail" (or as the case may be).

Rescue of planes.—

The development of fleet aviation has added very considerably to the rescue responsibilities of the officer of the deck and even when naval planes are not flying, other planes are often in sight and are at least remote possibilities for a call for the crash boat.

The officer of the deck is required to have special plane lookouts stationed and carefully instructed in their responsibilities when there are naval planes in company. If the ship carries planes or if she is a plane guard, a crash boat will be maintained ready to hoist out with the prescribed crash equipment. If not required to have a crash boat ready, the fire and rescue equipment must include the crash kit tools.

In the case of planes in distress, the question of time is generally paramount. This makes imperative, vigilance on the part of the officer of the deck and immediate action when occasion arises.

If the officer of the deck sees a crash or plane otherwise in distress, he should immediately proceed to the rescue at best speed, indicating the emergency by the proper alarm and by signal and make all preparations

en route. Even if in close formation, a ship's movements under such conditions are restricted only by the safety of the ship and adjacent vessels. Use whistle and speed indicators promptly. Of course, if other ships are obviously in better position to render assistance to the plane, then one's responsibility is limited to making emergency signals.

In connection with responsibilities in the rescue of aircraft, the officer of the deck should be cognizant of instructions for the salvage of planes. The following apply to towing a plane:

(a) At all times listen to what the aviator may have to say. He knows the capabilities of his airplane.

(b) To pass the towline, the towing vessel should approach the drifting seaplane from leeward passing the plane at sufficient distance to prevent the plane being thrown against the ship's side, but still close enough to pass the heaving line either by hand throwing or by a line-throwing gun.

(c) Rig the towline so that the airplane tows on the after face of the second stern wave.

(d) Work speed up slowly until the airplane is at least part way up on the step.

(e) Place an equal strain on both wing lines and leave sufficient slack for yaw, otherwise the airplane will tend to tow by one of the wing lines. Wing lines should not be made fast, but should be tended continuously.

(f) Do not attempt to tow to windward at any great speed.

(g) Change course a few degrees at a time to determine the most comfortable towing course.

(h) If trying to make port in a heavy sea, tack in if necessary. Do not allow wing tip floats to become buried.

(i) Use a drogue (bucket) on all headings at speeds below 10 knots and at higher speeds when the wind is from forward of the beam.

(j) Do not worry if the fabric is torn off the lower wings. If the sea is heavy the fabric on the lower wings should be slit to allow any water shipped to drain.

(k) Remove all personnel from the airplane.

(l) Tow at as fast a speed as possible with safety, the airplane rides easier, but do not permit the plane to "bounce" or yaw.

(m) Have positive and instant communication between the bridge and the after deckhouse.

(n) At all times have a man with an axe ready on the stern for cutting the towline.

(o) Have the most intelligent men stationed to tend continuously the wing lines, ready to slack one if the other carries away.

(p) If the hull or float is damaged and is leaking, the buoyancy of the plane can be increased by emptying the fuel tanks.

(q) Use chafing gear whenever necessary to protect the plane.

Chapter VIII

SMARTNESS OF MANEUVER AND APPEARANCE

Chapters IV and V have been devoted to ship handling, largely from the point of view of what the officer of the deck should do to insure the safe and effective handling of his ship, under varying conditions of independent and formation maneuvers. In naval maneuvers there is more to the subject than what you do. There is much in how you do it, particularly so, as the standard of performance of watch officers is high.

Every organization reflects the attitude of its head and if an officer has a reputation for doing things with snap and precision he will get things done in that way. If one wants alert, energetic, and forceful assistants, give them a good example.

A sound basis on which a ship may build a reputation for smartness of maneuver is smart handling of signals, whistle, speed indicators, and colors. There never has been an outstanding ship which wasn't smart at signals. An officer of the deck cannot watch signals every moment, but by his alertness, knowledge of signals, and a little pressure on the signal squad when needed, he can keep them on their toes. Do not overlook any mistakes or slackness on the part of signalmen, speed-indicator men, or men handling the colors. It is human to make mistakes. It is also human to be more careful next time, if one is held accountable for mistakes.

In all maneuvers try to avoid the impression of uncertainty as to course and speed. Having decided on a change of course or speed or both, make the change defi-

nately, accompanying it with the proper changes in speed indicators and, when required, with the proper whistle signals.

The speed indicators are always under close scrutiny from other ships. They may indicate smartness as well as speed. This is particularly true of exactness with which the speed cones are kept at the square marks, and the promptness with which cones and speed flags follow changes in speed.

There is always a chance to enhance one's reputation for smartness, on occasions when there is some job to be done, followed by an affirm on which other ships are waiting. Picking up boats or planes, transferring observers or other personnel, delivering mail, etc., are situations of this kind. Success in such matters is generally based on the forehandedness of the officer of the deck in being well prepared. Handling the ship to reduce boating to a minimum often contributes much. If one has AFIRM in stops, ready to break the instant the boat is clear of the water, a bit of snap is added to the maneuver.

The most conspicuous thing on a ship, viewed from another ship, is the colors. Delays in hoisting, lowering, changing colors, or in answering a dip, sometimes come from lack of vigilance on the bridge, but more often from poor communications aft, lack of forehandedness in anticipating a dip, or in having an inexperienced man at the colors.

In addition to smartness of maneuver, there is the question of smartness of appearance of the ship as seen from other ships, or from shore. Some ships, like some people, always appear smart, others do not. The officer of the deck must do his part by maintaining the highest standard of smart appearance for his ship.

Torn or frayed colors should not be used. See that the colors are two-blocked and the halyard is taut. The officer of the deck should take a personal interest in, not only the

WATCH OFFICER'S GUIDE

colors, but also any personal flag or the commission pennant.

The officer of the deck should keep a sharp watch on the topside and weather decks for Irish pennants, boat lines, and jacob's-ladders adrift over the side, guess-warps with the bights touching the water, unshined ports and franklin life buoys, men out of uniform, men throwing trash out of the ports, and guns and searchlights not trained in when secured.

The anticipation of boats required and the exactness with which the boat schedule is carried out are important. The appearance of the boats and smartness of the crews are indicative of the degree of discipline maintained in a vessel.

The weather, time of day, employment of ship, circumstances as to entering or leaving port, passing in review, etc., all concern the standard of dress appearance, and the experience of the officer of the deck will tell him what is appropriate. In general, however, he must always have in mind the appearance of his ship, and maintain the highest standard of smartness, which is reasonable and appropriate under the circumstances. He should keep an eye on the following items:

Battery, booms, cranes, and searchlights trained and secured in prescribed positions.

Officers and men in uniform.

Boat covers, hatch covers, tarpaulins, and all other canvas.

All gear hauled taut.

Scrubbed clothes, canvas, hose, etc., down.

Aired bedding.

Nothing over the side.

Prompt and accurate honors.

*Chapter IX***COMFORT AND CONTENT-
MENT OF THE CREW**

During a watch the officer of the deck should give every consideration, consistent with his other duties and responsibilities, to the comfort and contentment of the crew. It is appreciated by the men; it helps the ship and it helps the watch.

In general, he must be on the alert to foresee and forestall situations which will unnecessarily inconvenience the crew, as for example, advancing the meal hour during exercises which otherwise would unduly delay it. He should remember to administer the restrictive regulations necessary in naval organizations with strictness but with reasonableness and sense. He should not be as strict about uniform in a gale as on a sunny Sunday morning.

The officer of the deck should keep the following in mind:

(1) Avoid interfering unnecessarily with men's meals. Look ahead to avoid it and, when men miss their regular meals, see to it they get a good hot meal as soon thereafter as practicable.

(2) Avoid unnecessary work outside of working hours.

(3) Avoid unnecessary work in rain or exposure and, when such work is necessary, see men are properly clothed.

(4) See that men on the bridge or otherwise exposed are kept dry and warm with proper clothing and in bad weather are given special coffee, etc.

(5) Keep the ship well ventilated, and particularly look after the interests of the engine-room and fireroom.

WATCH OFFICER'S GUIDE

(6) Keep the ship dry. See that ports and hatches are closed in time, hatch hoods hauled over, etc. Shipping water in any quantity is generally an unnecessary mess which the officer of the deck could have prevented.

(7) Co-operate and assist in the smaller aids to contentment. Rig lights in a sheltered place for the band, arrange for movies, and rig a screen for the ball players.

*Chapter X***ROUTINE**

The duties of the officer of the deck to administer properly the routine of his watch and to record accurately and completely all happenings in his log constitute the most continuous and ever present activities of his watch. Over a considerable period they may be the basis of his reputation and success as a watch officer. The routine of the watch and the records of the log have been evolved from many years' experience and in the last analysis may directly concern the safety of the ship and many lives. It makes no great difference whether the band concert is at 1830 or 1845, but it does make a vast difference if the routine safety inspections are overlooked.

The general routine at sea is established by competent authority and, as modified or added to by the captain to suit special conditions, is the routine under which the officer of the deck administers his watch. The officer of the deck should keep a copy of the routine posted near at hand for ready reference.

The following is a typical routine at sea, but not necessarily exactly that of any ship:

TYPICAL ROUTINE AT SEA

Midwatch—0000 to 0400.—

Midnight—Relieve the watch. Watch and lifeboat's crew of the watch to muster. Carpenter's mate, gunner's mate, coxswains of lifeboats, boatswain's mates, and corporal of the guard make reports concerning soundings of bottoms, signal gun and battery, lifeboats and crew, reliefs of watch, and police conditions, respectively. With the exception of lifeboat coxswain, boatswain's mate, and

WATCH OFFICER'S GUIDE

corporal of the guard, these reports should be made hourly till sunrise. The division section leaders muster and report to the junior officer of the watch (a) men available, (b) men on watch. The corporal of the guard makes his rounds every half hour. Junior officer of the watch supervise muster of watch and lifeboat crews.

0150—Relieve the sea details.

0340—Call the watch, call the relief watch officers and inform them of the weather conditions.

0350—Relieve the sea details.

Morning watch—0400 to 0800.—

0400—Relieve the watch. Watch and lifeboat's crew of the watch to muster. Receive reports as at midnight. Call cooks and bakers.

0510—Call buglers, ships' police, petty officers and boatswain's mates.

0530—Call idlers (all hands except midwatch).

0545—Division police petty officers report decks clear of hammocks. Light smoking lamp.

0550—Relieve the sea details.

0600—Turn to. Carry out morning orders, scrub clothes. (All hands on Saturdays, Sundays, and holidays.) 5 minutes to sunrise: stand by running lights, speed cones, speed lights, speed flags (as directed). Sunrise: out speed and running lights, hoist speed cones and flags (as directed). Relieve port lookout. Starboard lookout shift to masthead. Station detail for breakdown flag.

0650—Up all hammocks.

0655—Time and uniform signal on senior ship.

0700—Haul down time signal, test whistle and siren. Call relief watch officers. Trice up scrubbed clothes. Serve out fresh water, make weather report to the captain. Notify cabin orderly, executive officer, all officers' messes, chief police petty officers, first sergeant, and boatswain's mates of the uniform of the day.

0705—Chief police petty officer reports all hammocks up and stowed.

0715—Mess gear.

0730—Pipe to breakfast. Pipe the uniform to the crew.

0750—Relieve the sea details.

0755—Report 8 o'clock to the captain. Band call.

Forenoon watch—0800 to 1200.—

0800—Relieve the watch. Watch and lifeboat's crew of the watch to muster. Test general alarm. Sick call. Send position reports.

0805—Turn to. Bright work.

0900—Knock off bright work. Clean up decks. Pipe sweepers. Flemish down gear. Division officers inspect.

0915—Officers' call. Quarters for muster, inspection, and physical drill. Out smoking lamp.

0930—(Saturdays, Sundays, and holidays) quarters. Captain's inspection on Saturdays. Week days, drills as directed by training schedule.

0950—Relieve the sea details.

1000—Signal (1) absentees, (2) sick, (3) hospital. On Sunday, divine service.

1045—Retreat from drill. Divisional instruction as directed by training schedule.

1130—Retreat from drill, pipe sweepers, light smoking lamp. (Sundays, light smoking lamp when Church is over.)

1145—Mess gear.

1155—Report 12 o'clock and chronometers wound to captain.

Afternoon watch—1200 to 1600.—

1200—Pipe to dinner, signal (1) fuel on hand, (2) expended.

1215—Relieve the sea detail.

1225—Band call. Band plays from 1230 to 1300.

1245—Send position reports.

WATCH OFFICER'S GUIDE

1300—Turn to. Pipe sweepers. If dry, pipe down scrub and wash clothes. Unrig clotheslines; pipe down aired bedding.

1315—Drill call. Out smoking lamp.

1350—Relieve the sea details.

1430—Retreat from drill. Pipe sweepers, ship's work.

1545—Notify relief watch officers.

1550—Relieve the sea details, lifeboat's crew of the watch to muster, electrician test running lights.

Dog watches—1600 to 2000.—

1600—Knock off work, clear decks. 5 minutes to sunset: stand by speed flags, cones, speed, running, and flag lights. Sunset: down speed flags and cones; on running, speed, and flag lights. Station night lookouts (masthead lookout shift to starboard lookout station). Station signal-gun watch (in formation), station searchlight watch and test searchlights, lifeboat's crew of the watch to muster.

1615—Pipe down scrub and wash clothes. If not piped down at 1300, lower clothesline, scrub and wash clothes.

1700—Sound howlers. Buglers sound water-tight doors.

1715—Dry down deck. Trice up clothesline. Mess gear.

1730—Pipe to supper. Uniform as ordered.

1750—Relieve the sea details.

1825—Band call. Band plays from 1830 to movies.

1845—Hammocks.

1930—Movies or drill as ordered.

1950—Relieve the sea detail (boatswain and all his mates), call the watch.

1955—Report to captain 8 o'clock, 8 o'clock lights, and galley fire out, prisoners secure.

First watch—2000 to 2400.—

2000—Boatswains set the watch. Lifeboat's crew and watch muster. Receive reports as given above from midnight. Send position reports.

2100—Taps

2150—Relieve the sea details.

2340—Call the watch and relief watch officers.

2350—Relieve the sea details.

Routine preparation for entering port.—When entering port the officer of the deck will be occupied with his part in the navigation of the ship and, if in formation, with station keeping and the necessary maneuvers. If the ship is to anchor in formation, his hands will be particularly full in keeping exact station while approaching the anchorage at slow speeds. He will be wise, therefore, under such conditions, to initiate his preparations for entering port well in advance, and to delegate to his assistants, as necessary, the routine preparations which should not be allowed to interfere with his paramount duty of handling his ship.

The preparations for entering port vary considerably with time, weather, place, and occasion, but the following items he must keep in mind:

(1) Notify the engine-room as far in advance as possible regarding time of anchoring; also inform the executive, gunnery, first lieutenant and engineer officer, the boatswain, carpenter, and gunner.

(2) Dispose of garbage or anything else to be thrown overboard, when well outside port, provided it is permitted by existing instructions.

(3) Get boats ready.—Find out from the executive officer which boats are to be hoisted out; call the coxswains of the boats to be hoisted out and have them get their boats ready. See that the boats are hooked on and that power is up to the crane motor. See that the captain's boat has boat cloth, colors, and pennant ready for use. If coming into port near sunset or at night, see that boats going out have running lights ready for use. If boats are to be used to transport supplies, see that all the

proper gear is in the boats. A boat should be prepared to make a guard trip.

(4) Prepare ground tackle and forecastle for anchoring, mooring, or picking up a buoy, as the case may be.

(5) If going alongside ship or dock, find out which side to, prepare lines, fenders, heaving lines, and line throwing gun accordingly, and clear that side.

(6) Rig gangways and booms and have them ready for going out smartly on anchoring.

(7) Have battery, searchlights, and booms, cranes, etc., not in use, secured in prescribed position for entering port.

(8) Have boat covers, hatch covers and other canvas properly stowed and all gear hauled taut.

(9) Pipe down all bedding, canvas except gun and director covers, hose, clothes, etc., and see nothing over the side or on the life lines.

(10) Have crew in uniform and all those not working, at their quarters but not too long in advance.

(11) Be ready to render honors as necessary.

(12) Station details at the colors for returning salutes, for shifting colors, and hoisting the jack on anchoring. If at night, have a detail ready to turn on anchor lights and also have a forward searchlight manned for use in piloting.

(13) Have working parties, stewards, mail orderlies, or others who are to leave the ship on anchoring, ready to leave ship promptly.

Relieving the deck.—Ever present items in the routine of the watch keeping are the relieving of the deck and the writing of the log.

In being relieved it is well for the officer of the deck to follow a mental check-off list of the items. In this connection, an officer should read "Information on relieving the deck" page 14 (Chapter II). If conditions permit, he may pass the last few minutes of his watch in running over or jotting down important items—particu-

larly as concern unexecuted orders which, unlike course, speed, formation, etc., might be overlooked. In this connection, it is well to remember that while his responsibility as officer of the deck ends when he is relieved, he remains responsible for anything that may go wrong, due to inaccuracies or omissions in the information furnished his relief.

It is a custom to relieve the officer of the deck early. An officer should be on deck, ready to relieve at 10 minutes before the end of a watch. He then has time to become acquainted with the situation, to be thorough in relieving and to accustom his eyes to the darkness if at night. This in turn gives the officer being relieved time to write his log before the end of the watch. All this adds to the general good will of the officers and to the efficiency of the ship.

The ship's log is the only complete official record of the ship during her commission. It is imperative that the log be not only complete, but accurate and clear. Because of the many routine inspections required to be entered in the log, it also serves as an important check on these inspections being made.

The log is covered in considerable detail in Chapter XIX.

PART II
OFFICER OF THE DECK—
NOT UNDER WAY

*Chapter XI***SAFETY OF THE SHIP****NOT UNDER WAY**

Generally speaking, the responsibility of the officer of the deck, when the ship is not under way, is the same as when under way. The status of the officer of the deck and his authority are the same and most differences are in degree. At sea the safe navigation and efficient handling of the ship are not only his paramount duty but his continuous, ever present, and direct concern. When not under way, the safety of the ship is still his paramount concern, but under normal conditions the ship is comparatively secure and he is free to devote most of his attention to routine and administrative activities which are generally more numerous in port than at sea. The ship may be at anchor, moored to a buoy, alongside a ship or dock, or in dry dock. Whatever the status of the ship, however, his responsibilities may be grouped roughly as follows, based on their relative importance rather than on the time and effort which he will normally spend upon them. Each of these items will be covered by a chapter.

Safety and security of the ship.

Safety of personnel, boats, planes, and other material.

Readiness of the ship for duty.

Smart appearance of ship, boats, and crews.

Comfort and contentment of crew.

An efficient watch routine.

Safety and security of the ship.—At anchor there is always a possibility that the ship will drag or carry away her anchor chain and go aground or foul another vessel. There is also the chance, particularly in crowded naval

anchorage, that the ship will foul or be fouled by an adjacent ship, when they swing in opposite directions. There is the risk of being fouled or rammed by ships under way, and the ever present risks of fire, explosion, and "acts of God" in the form of large waves and hurricanes.

Forehandedness and vigilance, combined with some small experience which extends but little beyond the promptings of common sense, are the best basis on which to meet the responsibilities for the safety of the ship under such conditions. Always watch the weather and the weather forecasts.

Dragging.—Conditions favorable to dragging are strong wind, or current, or both, heavy sea, drifting ice, and poor holding ground. The officer of the deck should know the kind of holding ground and should be on the alert in a tideway and when the wind is fresh, particularly when wind and tide combine. He must keep a lookout on the chain. It will get very taut before the anchor drags, and when the anchor is dragging, he can sometimes feel it by placing his foot on the chain. When there is a possibility of dragging, the first thing to do is to veer chain if practicable to do so, and get another anchor ready for letting go; then put over the drift lead and begin taking bearings and ranges. At the first suspicion that the ship is dragging, notify the captain and executive officer, but do not hesitate to veer chain or let go another anchor without waiting for orders. If there is steam on the engines, notify the engine-room to stand by and take station on the bridge. In fact, when riding out bad weather at anchor, with constant possibility of dragging, it is well for the officer of the deck to station himself on the bridge and use the rudder to steady the ship's head, if practicable.

If the engines are secured and there is a possibility of dragging, particularly in a crowded anchorage, or near a lee shore, the captain will order preparation for getting under way immediately, or on short notice. It may be

sufficient in some cases to relieve the strain on the anchor by turning the engines over slowly. These decisions rest with the captain, but in an emergency, when no moments are to be lost, the officer of the deck must give orders directly to the engine-room and notify the captain that he has done so. If the ship once gets to dragging noticeably, notwithstanding an additional anchor and an increased scope of chain, it is difficult to stop her without use of the engines.

If the dragging situation develops, the commanding officer should make an emergency signal to any ship to leeward. The other vessel may be able to avoid being fouled by veering, clearing his side, or using rudder or engines. As the ship drags it may be possible even without the engines to avoid fouling a near-by ship, by rigging in booms, training guns, or by using the rudder.

Swinging into other ships.—In the crowded naval anchorages, an officer will have many uncomfortable moments because of ships threatening to or actually swinging into each other. Generally speaking, the situation is not really dangerous, but in rough water or with small ships, propellers may get foul or considerable superficial damage may be done to the ship's side. An officer of the deck is responsible for being forehanded enough to see the situation, notifying the captain and executive officer, and for handling it in a seamanlike manner.

It may be that a ship lies between two others, both of which start to swing toward the first ship. In this case an officer of the deck can do little but choose the lesser of two evils in any attempt to control the swing of his ship. He has the anchor chain, the rudder and his boats with which to handle the ship. He can veer, if that will help, but he should promptly get steam on the anchor engine and the steering engine. If there is some current, the rudder may be effective, particularly in starting the swing in the desired direction. The ship's boats, even in the case of

large ships, if working on the ship's stern, have considerable power to control her swinging. There may be a duty tug available to help or possibly a naval tug, or yard craft passing near by, which can be pressed into service. In any case, the officer of the deck must do all he can to get his side clear and have fenders ready in case the ships actually touch.

Being struck by a ship under way.—When the ship is at anchor, the chances of being rammed or fouled by a ship under way are much less than when under way. Nevertheless, serious collisions of this kind have happened, even to battleships, and the prime virtue of forehandedness must include guarding against such happenings. The perfect set-up for collisions of this kind occurs when a ship is anchored somewhere near the channel of a harbor in fog, heavy rain, snow, or dust storm. Night, of course, makes such conditions worse, although on a clear night she is protected by her lights. When the normal lights are not visible, an officer must be certain that his at-anchor fog signals are loud and frequent, and extra lookouts are stationed to listen for the fog signals of ships under way. A searchlight must be ready and must be shown in the direction of an approaching ship. The officer of the deck must take the same precautions as to water-tight doors, as if under way.

When one ship is coming alongside of another at a buoy or at a dock, the officer of the deck will make all arrangements to receive her, with men to handle lines, fenders, etc. He should keep in mind, particularly if the landing is to be made under unfavorable conditions, that there is always a possibility of the side being damaged to an extent approximating a real collision.

For procedure in case of collision, see page 75.-

Fire and explosion.—The officer of the deck is responsible for prompt and effective action, in accordance with the ship's bills, in case of fire or explosion. An even greater

WATCH OFFICER'S GUIDE

responsibility is that of enforcing to the letter all safety precautions with a view to preventing such occurrences. He must be particularly careful when handling ammunition and gassing boats and planes or otherwise handling gasoline, and to watch the activities of navy-yard workmen with hot rivets, burning off paint, etc. When in dry dock or otherwise secured so the ship is dependent on outside forces for pressure on the fire main, a check must be kept on its constant availability.

Chapter XII

**PERSONNEL, BOATS,
PLANES, AND MATERIEL**

NOT UNDER WAY

Next to the safety and security of the ship as a whole, the officer of the deck in port is concerned with the safety of personnel, boats, planes, and materiel. His responsibilities in this connection are, in general, the same as those covered in Chapter VI, when under way. In port, there are additional activities, principally boating, which add much to his duties. It is probably true that there are more men lost in port than at sea, due to the extra hazards of boating, returning from liberty, and working over the side.

Loading of boats.—The officer of the deck must never relax his vigilance concerning the loading of boats, and he must impress the same on his junior officer. If a boat full of men is swamped, there is almost certain to be some loss of life and the officer of the deck is responsible if the boat left the ship during his watch. The same care must be taken in loading with stores as with a liberty or working party. It is not sufficient that the maximum capacity of boats be not exceeded. Under some conditions a boat could be overloaded at half capacity. The officer of the deck is charged with determining what is safe loading. In making such decision he must consider not only circumstances at the ship at the moment, but probable weather, time the boat will be away, and the kind of waters through which it will pass.

The handling of liberty parties often involves the question of overloading. The officer of the deck must not be

persuaded into letting just a few more into a boat against his better judgment. He must remember that returning liberty parties are often not as reliable as those going ashore. If possible have a junior officer as boat officer in bringing off large liberty parties.

Crews of boats generally do not like to wear life jackets, but the officer of the deck must see that they are always worn in ports such as San Francisco where there are dangerous currents, and where prescribed by fleet regulations. The officer of the deck must prescribe them at other times when he considers it desirable. He should see that the required number of life jackets are in all boats at all times. In boats leaving the ship for any duty involving separation from the ship with the possibility of drifting to sea if broken down, he must see them fully equipped with ample provisions and water, and anchor and line.

He must enforce to the letter all safety precautions in boats, particularly such as concern fire. In hoisting or lowering boats, especially in rough water, men are apt to get hurt if careless or inexperienced. Under such conditions, or when handling lines, planes, or stores, under difficult circumstances, he should turn over the unessentials of the watch to someone else and make certain that all reasonable precautions are taken so that no one is hurt, plane damaged, or stores lost, as the case may be. *Navy Regulations* require a lifeboat ready for lowering between sunset and 0800, when in port.

Each boat should have a boat compass in good condition. It should have a permanent stand so that its position is fixed and therefore its deviation will be constant for a specific heading. A compass record book (note book), should be maintained by the coxswain and inspected by the officer of the deck. In it should be entered the courses to the landings and the return courses, to be used in case of fog.

Each boat coxswain should be cautioned to reduce speed in case of fog and to use the sound equipment available in low visibility.

Men over the side and aloft.—The officer of the deck must make certain that all men working over the side are properly equipped and tended. Side cleaners should wear life jackets and men working with accommodation ladders over the side, particularly in rough water or a tide way, should put on a bowline.

No man is allowed aloft without the permission of the officer of the deck, who must assure himself that all power is cut off the antennae, and that other safety precautions are taken for the safety of the man.

Life lines must be rigged when advisable. Such places as open hatches and manholes must be suitably roped off. When life lines are removed or in heavy weather, rig emergency life lines inboard. When a ship is in dry dock special care should be taken to make conditions safe for men returning from liberty when light conditions are poor and the men not capable of using their best judgment.

Boats and planes.—The supervision and operation of the boats is often a major activity in a watch. In addition to the question of loading and safety precautions while using the available boats for the work of the watch, an officer must exercise supervision over their goings and comings. An officer of the deck must know how each boat is employed and where. The quartermaster must keep an eye on all boats and planes in sight, particularly boats under sail which should be recalled at once if weather threatens.

The condition of boats and planes secured at the ship may be a matter of concern. In slack water or when the ship is swinging, a plane astern or boats astern or at the booms may swing against the ship's side or each other and do considerable damage. The officer of the deck may have to put in boat keepers or to secure them differently. In bad

weather, particularly if in an exposed anchorage, he should hoist in some or all boats, depending on circumstances, or send them inshore to secure in a sheltered place. In bad weather, such boats as he keeps down and at the ship will ride best if secured with a long scope of line astern.

Materiel in general.—An officer of the deck in port will have considerable concern in the handling of materiel, stores, and equipment. Where transportation by boat is required, he must see adequate facilities provided and the boats properly loaded. It is a good general rule in transporting stores and equipment that some representative of the responsible activity accompany the materiel, particularly so when papers, receipts, etc., are involved, or the stores are of a nature which might tempt members of the working party or boat's crew.

Certain stores, such as fresh provisions for the general mess, are required to be inspected and weighed by an officer. The officer of the deck is responsible that this is done and proper entries made in the log. When at a dock, with workmen or frequent visitors aboard, he should keep an eye on what leaves the ship.

In addition to all safety precautions concerning the handling of combustibles and explosives, he must concern himself with arrangements for the handling of heavy weights, to see that qualified officers or petty officers are in immediate charge, and working with all reasonable considerations for the safety of men and materiel concerned.

Chapter XIII

**READINESS OF SHIP
FOR DUTY**

NOT UNDER WAY

Generally speaking, when at sea, a ship is ready for any duty assigned. With the necessary warning, it can proceed as ordered, and such minor services as exchanging observers and delivering mail, which involve boats leaving the ship, are readily handled when they occur. In port, however, in addition to the primary consideration of the ship's being ready to get under way and proceed, when, where, and as ordered, there are many minor requirements of readiness which concern the officer of the deck. Some of these will be matters of routine, others matters of special instructions. In either case the day-to-day success of an officer of the deck in port will depend largely on the reliability and precision with which he meets all the calls for various duties.

Among the more common assignments are guard duty of several kinds, landing patrols, mail trips, fleet working parties, furnishing observers, inspection parties, landing force, and various special details. There is only one general rule to be remembered in handling these many calls, that is, the often repeated warning to be forehanded. An officer must look ahead and plan his watch to meet requirements with facilities at his disposal.

GETTING UNDER WAY

It sometimes happens the ship gets sudden orders to get under way immediately. Under such conditions the engines are generally the controlling factor, and other

preparations with the possibility of hoisting some boats, can be made by the time the engines are ready. In such cases an officer should do everything possible to expedite matters, making arrangements if practicable, for any men or boats left behind and otherwise changing plans necessitated by the ship's unforeseen orders.

More commonly the ship receives orders to be ready to get under way for some place, duty, or service, at a certain time. If his watch includes the period of preparation, it is his responsibility that the ship be ready to get under way at the time ordered.

The procedure in getting ready to get under way will vary with the size and type of ship and with the urgency of the situation. In most ships, the ship's organization or orders provides a standard routine or check-off list for getting under way. The following is the routine of a large ship:

Whom to notify.—On receiving orders to get under way, notify the executive officer, the engineer officer, the navigator, first lieutenant, chief boatswain, carpenter, gunner, chief quartermaster, chief boatswain's mates and all heads of departments.

Hoist boats, etc.—Hoist all boats and secure them for sea. If it is necessary to keep a boat down until immediately before getting under way, get everything in readiness to pick it up without delay. Rig in booms (do not forget the quarter booms). Rig in gangways and secure them for sea. On short trips gangways may be triced up, but the executive officer will give orders in this regard.

Steering and anchor engines.—Inform the engine-room to put steam on the steering and anchor engines. Half hour before getting under way have the chief quartermaster test steering gear and the carpenter take the draft of the ship; get the anchor engine ready for use.

Test telegraphs, etc.—A half hour before getting

under way have the chief quartermaster test and report on the condition of the engine-room telegraph and annunciator, whistle and siren. Have him get the sounding machine, patent log, lead lines, speed cones, and stadimeter ready for use.

Ground tackle.—Have the chief boatswain's mate make preparations to heave around. The executive officer may give additional orders in regard to scope of chain. These orders must be followed carefully.

Sea detail.—About twenty minutes before time to get under way, send all sea details to their stations. These details are: wheel, leads, speed cones, speed flags, engine-room telegraph, breakdown flag, colors and jack, steering engine-room, lookout and life buoys. (Check these details before reporting ready.)

Test engines.—When the engine-room is ready, see that there are no boats astern and request permission from the commanding officer to turn over main engines. When the request is granted, the officer of the deck or navigator should take station on the bridge and see that the bridge indicators follow the engine-room.

Fog or misty weather likely.—When there is a possibility of fog or misty weather, the position buoy should be ready for use.

At night.—When getting under way at night, see that all running lights, speed lights, and searchlights are ready for use and that the running, speed, and anchor lights are manned.

Ports, shutters, etc.—See that all the air ports in the side of the ship are closed. The carpenter reports air ports on the lower deck. See that all loose gear about the ship is properly secured. Train all guns and turrets to their locking positions. Small ships should be thoroughly secured for sea regardless of weather.

Preparations for honors.—If the occasion will demand, have the guard and band prepare to render honors.

Chain tierers.—Have chain tierers go below in sufficient time to be ready to stow chain as it comes in.

Report to executive and commanding officer when ready.—When all departments have reported ready for getting under way and the ship is in all respects ready for sea, report the fact to the executive officer. After reporting to the executive officer, make the same report to the commanding officer.

Deck relieved by executive.—The executive officer will relieve the deck and, except during drills, the officer of the deck will usually be required to remain on the bridge to carry out the routine or whatever duty the executive officer may designate.

The AFIRM.—When heaving around, in obedience to signal to get under way, on all ships except flagships the AFIRM should be broken at half-mast when hove short, and two blocked at the fore peak when the anchor is aweigh. The AFIRM should be hauled down when ready to take and hold position in formation. When ordered to heave short in preparation for getting under way, the AFIRM is not hoisted at the dip until the signal to get under way is executed.

*Chapter XIV***SMARTNESS OF SHIP,
BOATS, AND CREW****NOT UNDER WAY**

Much that was said in Chapter VIII on smartness of maneuver and appearance under way applies with equal force when in port. The weather, time of day, location of the ship, work in progress, ceremonial occasions, and inspections all concern the standard of appearance which may reasonably be expected. An officer's experience and common sense will be his guide, having always in mind the maintenance of the highest standard of smartness and of shipshape appearance that is reasonable and appropriate under the circumstances. As an example, the condition and appearance of the side, deck, and topside during work at a navy yard or alongside a tender is a different matter from what may be expected when anchored and waiting for inspection. What might be creditable to the officer of the deck in one case would be impossible in the other. The important thing for the officer of the deck is that he keep always in mind the appearance and smartness of his ship and all connected with it, and keep his watch accordingly.

The following are some of the important items that go to make a smart ship and a watch at anchor:

Colors, personal flags, and signals are under constant observation from other ships, particularly the flagship. An officer must keep an eye on the colors and the jack, see them smartly handled with proper ceremony, following the flagship. He must see that they are kept clear and at two-blocks, are of proper size, clean and whole. A dis-

colored or torn ensign or jack must be replaced at once.

If the ship flies a personal flag or pennant, make certain at frequent intervals that it is as it should be. On occasions of ceremony, full dress, and dress ship, take every precaution that the proper flags are smartly handled and hoisted at the correct time and place. It is a good rule to cast an eye aloft from time to time.

On the quarter-deck an officer of the deck cannot supervise the signal bridge, but when practicable, he should keep an eye out for any signs of inattention or lax performance, and take action directly or through the signal officer as occasion requires. It is an excellent thing for the signal bridge to know that even in port the officer of the deck is watching the signal business.

Side and upper works.—The appearance of the side and upper works is a conspicuous indication of the smartness of a ship. Subject to the requirements of work, of drills in progress, and of the weather, the officer of the deck must see that the side is clean and clear, battery trained, booms square, gear shipshape, ladders properly rigged, boat lines and fenders ready, boats properly secured with boat keepers in uniform and alert in caring for boats and rendering proper salutes. Men must not hang on the life lines, or call out at passing boats.

On the top side, scrubbed clothes or canvas out of place, screens, hatch covers, and the like not secured or properly made up, are to be watched for constantly. Booms, cranes, and anti-aircraft battery not in use must be properly trained and secured, all gear, targets, wind-sails, etc., kept taut, and ventilators trimmed. The canvas covers should be on all guns, directors and fire control apparatus when in port, or when there is an opportunity for unauthorized persons to see them.

Particularly the officer of the deck must see that there are no holidays and no stray hammocks or clothes after pipe down. He must see that there is no ground for

criticism because of men bathing on deck. In small ships without adequate washroom facilities, he must see that necessary screens are rigged.

Ladders.—All ladders and gangways should be kept strictly up to the mark, and the dress gangway should be immaculate. Ladder screens are kept rigged when practicable and the manropes taut. Slack manropes are unseamanlike and are sometimes a source of accident. At night, proper lighting should be provided.

Boats.—A ship is known by her boats. The boats should be a credit to the ship and to the officer of the deck. Many coxswains who handle their boats well alongside are inclined to be slack about salutes and honors, and will take a chance on the Rules of the Road. The officer of the deck should bear down on such men and in flagrant or repeated cases should take disciplinary action. As regards the cleanliness and general appearance of boats, the officer of the deck, of course, will consider the type of boat and the duty engaged in, and the opportunities for cleaning up. He will have different standards for the barge and the punt. The average condition of a boat reflects the efficiency of the coxswain and the activity of the division officer. If the boat is generally below standard, it should be reported to the executive officer.

As opportunity presents, watch the performance of the several boats and coxswains, how promptly calls are answered, how a tow or a difficult landing is handled, how often a fender or line is left trailing over the side, and how the boat crew acts at the boom. Bestow commendation and admonition as warranted.

The quarter-deck.—Enforce strictly the etiquette of the quarter-deck. Except for necessary work or drill in progress there, see that it is kept immaculate, and that its ceremonial character is strictly maintained.

Uniform.—The question of maintaining the crew in proper uniform is ever present with the officer of the deck.

Perfection in uniform and appearance of men at all times is, of course, unattainable; there is too much work going on aboard ship. Based on the ship's policy and common sense and experience, maintain as high a standard as possible with impartiality. The crew will be just as slack about uniforms as they can be. They will live up to any reasonable degree of strictness which is impartially and continuously enforced.

Salutes and reports.—The officer of the deck must insist on proper salutes and proper language in reports of all officers and men. The officer of the deck must make his salutes and reports dignified, smart, and in accordance with the best naval practice. He must avoid any semblance of informality, familiarity, or casualness, in dealing with officers, men, or visitors.

Quiet.—He must conduct the business of his watch with a minimum of noise. There is a close association between efficiency, smartness, and quiet. He should suppress profanity and obscenity on all occasions.

Chapter XV

**COMFORT AND CONTENT-
MENT OF CREW**

The concern of the officer of the deck in port with the comfort and contentment of the crew is much the same as when under way, as touched upon briefly in Chapter IX. In port, however, there are additional matters which he should keep in mind. This period is more of a recreation time than at sea, the crew is considerably concerned with its contacts ashore, athletics, recreation parties, sailing, fishing, swimming, visiting, receiving visitors, ship entertainment, or in leisure on ship board. There is a time and place for such activities, of course, and a proper way to handle them. An interested and sympathetic attitude on an officer's part does much as an aid to contentment which, besides being in itself desirable, is often an asset to the officer of the deck in handling his watch.

Make getting ashore and getting back as easy for the men as is practicable under the circumstances, also transportation to other ships and for sailing, fishing, swimming, or other recreation parties. Swimming call should be sounded when conditions warrant. The officer of the deck must think of the boats' crews. There are times when they lead a dog's life. An officer should see that they get reliefs, have proper clothing, get good hot meals, and are not needlessly kept in the boats alongside or at the booms. A word of appreciation or encouragement helps a great deal when boating is bad.

The officer of the deck should keep an eye and an interested ear for what concerns the men's meals, both as to time and quality. He should look ahead a bit and

avoid working the men in the rain or foul weather unless absolutely necessary. He should see that they are properly clothed and if they get wet, have a chance to shift. Their aired bedding or dry scrubbed clothes must be kept from getting wet. The officer of the deck must cultivate a businesslike but agreeable manner of giving instructions and in dealing with the men. He should avoid keeping men standing by unnecessarily, or an unduly long time. Judgment must be used between being forehanded and getting ready too far ahead of time. It is a good thing to see that men, particularly working parties, are properly dressed for the work they are going to do. Men who are to work in cold storage spaces should be in heavy clothing.

A good leader looks out for his men and they in turn will look out for him.

*Chapter XVI***ROUTINE****NOT UNDER WAY**

Generally speaking, while the actual responsibilities of the officer of the deck in port are not so heavy as at sea, the routine of the watch will frequently be more strenuous. This condition arises from the many contacts and interests of the ship with the shore, the boat schedules, handling men and provisions, the frequent honors and ceremonies.

The routine activities in port will vary widely under different conditions. The important thing is to administer the routine smoothly, efficiently, and smartly, yet remembering always that routine is only routine and that the great responsibility of the officer of the deck is the same as at sea—the safety of the ship, its personnel, and its materiel.

Relieving the deck.—An officer begins his watch right by making certain that he obtains from the officer he relieves a complete and accurate turn over and all other information that may be of value in his watch.

While there are endless variations of circumstances and conditions, the following are the principal items to be considered:

Status of ship.—Anchored or moored, moored to pier or buoy, in dry dock, alongside tender.

Position of ship.—Bearings of anchorage, number of berth, buoy, or pier, to which secured.

Status of ground tackle or moorings.—Anchor(s) in use, scope of chain, kind of bottom, kind of moor, lines, camels, spur shores in use.

Depth of water.—State of tide, time and direction of last swing.

Readiness for bad weather.—Status of main engines and boilers, anchor engine, steering engine, anchors ready for letting go, drift lead, bearings taken to detect dragging.

Other ships present.—Naval vessels, particularly the flagship, also merchant vessels near by.

Weather.—Present and prospective.

Guard ships.

Boats.—Running boats, trips in progress, readiness, schedule, special trips.

Status of all planes.

Liberty.—Complete information concerning officers. Location of admiral or other unit commanders, captain and executive officer, officers ashore.

Orders.—All unexecuted orders, officer of the deck's order book, navy-yard regulations and fire bill, harbor regulations, special orders and drills.

Work and drills.—In progress or scheduled.

Visitors.—On board and orders concerning.

Workmen on board.

Additional at night.—Life boat designated; anchor watch, number, when, and who in charge; morning order book.

AFTER RELIEVING AT ANCHOR

After relieving at anchor, an officer should habitually keep his watch on the starboard side of the quarter-deck. He should receive reports from, and give orders to, all boats leaving or returning to the ship (either in person or through the junior officer of the watch). He should have the junior officer of the watch inspect the upper decks by day at intervals when he can be spared. In making these inspections the junior officer should be cautioned particularly to see that: men are in uniform; no infractions of smoking regulations; boat keepers alert and not lounging in their boats; ventilators prop-

WATCH OFFICER'S GUIDE

erly trimmed; pennants and colors chock up and clear; awning stops properly passed and ends expended; no clothes hanging about in unauthorized places; decks cleanly swept down and waterways cleaned out; gun crews on watch, alert, and keeping a bright lookout; chain properly secured, how tending, and if there is a strain on it. At night he should see that no unauthorized lights or fires are burning; that anchor lights are burning; that the signal watch is alert, and that men are not sleeping in unauthorized places.

At night the petty officer, or corporal of the guard, or other person detailed for this purpose, should be required to make the rounds of the ship every half hour after 2000. and until "all hands" are called in the morning. During these rounds the petty officer should inspect the lights and prisoners; see if irregularities of any kind are taking place, and report the result of each inspection to the officer of the deck. The junior officer of the watch should also be required to make these rounds every two hours or oftener if necessary, providing his services on deck can be spared.

The officer of the deck should see that the columns of the log are properly filled in and should check up entries therein as necessary. He should require the quartermaster to keep a notebook and to enter all occurrences therein, with the time of each.

Use of assistants.—An officer of the deck must rely heavily on his assistants, particularly the junior officer of the watch, the quartermaster, and the boatswain's mate. Experience will tell him how much can be entrusted to these subordinates, and under what circumstances. As a general thing it is good practice to delegate as much as possible of the watch routine to the junior officer of the watch. It is good experience for him and it leaves the officer of the deck free to supervise the more important activities.

Do not rely implicitly on the quartermaster or signalmen for reports of what is going on outside the ship. They will miss something, like the approach of an admiral, which may be embarrassing.

When an officer of the deck leaves the gangway he should see that one of his assistants takes his place. Also when he is on one side of the ship one of his assistants should be watching the other.

Reports and salutes on leaving and returning to the ship.—The officer of the deck shall require all persons over whom he has authority to report to him or his representative upon leaving the ship, stating that they have permission to do so, and also to report their return on board.

The absence from the gangway of an officer of the watch, at the time of the departure or return of any officer, is not to be construed by the latter as a sufficient reason for omitting this report.

The officer of the deck shall report to the executive officer the departure and return of all officers senior to that officer.

As soon as it is known that the commanding officer is about to leave the ship notify the executive officer.

The following ceremonies shall be observed at "colors" on board ships in commission: The guard of the day and the band shall be present. At morning "colors," "Attention" shall be sounded on the bugle. This shall be followed by the playing of the National Anthem by the band, at the beginning of which the ensign shall be started up and hoisted smartly to peak or truck. All officers and men shall face the ensign and salute and the guard of the day and sentries under arms shall come to the position of present arms while the National Anthem is being played. In the absence of a band, "To the colors" will be sounded on the bugle. In the absence of a bugle "Attention" shall be sounded by other appropriate means and

the procedure prescribed shall be followed during the raising or lowering of the ensign. Subsequent to "The Star Spangled Banner," honors to foreign ensigns shall be rendered at morning "colors" only, by the band playing the appropriate foreign national anthem. The salute and present arms shall terminate with the sounding of "Carry on."

The same ceremonies shall be observed at sunset, the ensign being started from the peak or truck at the beginning of the National Anthem and the lowering so regulated as to be completed at the last note. In the absence of a band, "Retreat" will be sounded on the bugle.

In half-masting colors, always hoist full up to the truck or peak then lower to half-mast; the reverse procedure holds for lowering from half-mast.

In hoisting, lowering or half-masting the colors, the motions of the senior ship present in sight shall be followed.

Salutes by dipping.—All salutes from vessels by dipping their colors shall be answered dip for dip. This should be done promptly and smartly; do not wait for the saluting ship, round up immediately. If such a salute is made before 0800 or after evening colors, the colors shall be hoisted at the peak and the salute returned as above. The colors should then be hauled down when saluting ship is well clear.

Union jack.—When at anchor the union jack is displayed from morning to evening colors. It should be half-masted when colors are at half-mast. The jack at the yardarm signifies that a general court-martial or court of inquiry is in session. It is hoisted and a gun fired when the court meets and is hauled down on the adjournment of same. The gun is not fired when underway.

Men-of-war entering harbor.—If an entering man-of-war is to anchor in berth nearby, turn on the fore truck light and turn off same as soon as she is anchored.

Complaints.—In hearing complaints exercise patience; hear both sides of the story fully before deciding on action. If the complaint is serious, refer it to the executive officer immediately. If it is a question of a person being a menace to the ship or ship's company, report the fact to the commanding officer and ask permission to put the person under sentry's charge for safe keeping.

Uniform.—Between morning and evening colors, no men except artificers, the gunner's gang, and engineers, wearing dungarees, should be allowed on the upper decks out of uniform and these only when actually engaged in work.

Provisions.—The necessary instructions to send to supply ships for frozen and other supplies are made in the office of the executive officer, but it remains for the officer of the deck to carry them out. It is sometimes necessary to send for frozen supplies around 0430, or in any event before reveille. This requires breaking out the working party, providing breakfast or coffee for them; getting out the necessary boats; calling the commissary steward and providing gear for the boats. The officer having the first watch should see that all of the working party sleep in the same part of the ship and word as to their whereabouts should be passed along. The details in preparation of boats for the supplies should be begun sufficiently early so that they will be alongside when it is time for the party to shove off. The return of frozen supplies should be particularly looked out for, and to this end all preparations for receiving them on board should be made. These supplies should be struck below immediately. The junior officer of the watch or a responsible chief petty officer should be in charge of this. Supplies should be checked as received on board by a representative of the supply department. The executive officer should be kept informed of supplies received and amount remaining to be received.

Inspection of purchased articles.—Articles purchased shall be delivered subject to inspection and approval as to quantity and quality by the head of the department requiring them. In the case of fresh provisions for the general mess or for the ship's store, an officer of the supply corps or a pay clerk or other officer designated by the commanding officer shall inspect as to quantity, and a medical officer as to quality.

All inspections of supplies shall be made by the officers of the ship to which they are delivered.

Should the decision of an inspecting officer be questioned, the commanding officer shall order a board of at least three competent officers to inspect the supplies. The report of this board, if unanimous, shall determine the acceptance or rejection of the supplies; if not, the final decision shall rest with the commanding officer.

Each delivery of stores shall be accompanied by a list of the articles.

Liberty parties.—Liberty parties should be assembled in ranks and carefully inspected before being allowed to go ashore.

Be sure to inform men when leaving the ship of the time of expiration of liberty.

Men should not be kept waiting to go ashore any longer than necessary. On rainy days boats should be provided with tarpaulins or boat awnings, if available.

Extreme precautions should be taken in embarking men in boats. When the water is smooth, no more than the number of men designated on boat plate should be embarked in a boat, and on rough days a special safety factor depending on the state of sea and weather conditions should be introduced.

Men returning from liberty should be sent forward as soon as checked off or cards taken. This should be expedited. The police petty officer or corporal of the guard should always be present when men return from liberty.

Do not argue with a drunken man. Put all such cases in charge of the police petty officer. Send them to the sick bay and then send word to the doctor to make an examination.

Visitors.—All visitors should be courteously and politely treated, but cameras should be taken care of and suspicious bundles investigated even though objection is voiced thereto. Visitors must not be allowed in certain parts of the ship. Most ships have a list of authorized places and a bill for rigging ship for visitors. It must be carefully followed. Escorts should always be provided for visitors. The corporal or a police petty officer should always be at the port gangways when visitors arrive. It is a good plan to have some one at the foot of the gangways and a life buoy handy when the shore boats arrive in numbers.

PORT ROUTINE

A typical routine of a large ship in port follows:

0300—Call cooks and bakers on duty.

5 minutes before sunrise—Stand by to turn off anchor lights.

Sunrise—Turn off anchor lights.

20 minutes before reveille—Call boatswain's mates of divisions, all buglers, hammock stowers, lower deck petty officers, engineer incinerator detail, chief police petty officer.

0530 or as ordered—Sound reveille. Serve out coffee. Call all deck chief petty officers. Light smoking lamp.

15 minutes after reveille—Division police petty officers report hammocks up. Chief police petty officers reports deck clear of reveille hammocks. Police prisoners in head and washroom. Start incinerator. Pipe sweepers. Lead out wash deck hose. Lay up gear clear of decks.

½ hour after reveille—Turn to. Scrub clothes. Carry out

WATCH OFFICER'S GUIDE

- morning orders. Boat keepers clean boats. Side cleaners over the side. Fuel motor boats. (See "fueling boat" bill). All boats try out engines.
- 0555—Hoist out motor whaleboat and duty boat.
- 0650—Up all hammocks.
- 0700—Trice up clothesline. Time and uniform signal. Call officer of the deck's relief. Notify executive officer, captain's orderly, chief police petty officer, first sergeant, officers' servants, and central station of the uniform of the day.
- 0715—Mess gear. Chief police petty officer report all hammocks up. Coxswain of relief motor boat and motor launch report ready. Publish uniform of the day. Inspect ship's side, boats, mast, and rigging.
- 0730—Breakfast. Shift into uniform of the day during meal hour.
- 0745—Colors signal.
- 0750—Call guard and band. Air bedding Mondays and Thursdays.
- 0755—First call to colors (to be sounded by all buglers).
- 0758—Report 8 o'clock to commanding officer.
- 0800—Colors. Band concert until 0815. Boatswain's mate of the watch muster side boys, buglers, lookouts.
- 0805—Turn to. Clear lower decks. Haul out awning stops. Sound bright work call.
- 0830—Sick call.
- 0845—Knock off bright work. Clear up decks for inspection. Flemish down gear. Pipe sweepers. Inspection of lower decks.
- 0855—Officers' call (except on Saturdays, Sundays, and holidays). Out smoking lamp.
- 0900—Assembly, quarters. Inspect running boats.
- 0905—Setting up exercises.
- 0925—Saturdays, Sundays, and holidays—Officers' call.
- 0930—Drills as prescribed. Band practice during division drills or after general drills. Quarters for muster

- and inspection Saturdays, Sundays, and holidays.
- 1000—Signal report of absentees and sick; and report to commanding officer.
- 1030—Retreat from first drill period. Light smoking lamp.
- 1040—Out smoking lamp. Drill call.
- 1130—Retreat from drill. Mast. Pipe sweepers. Light smoking lamp.
- 1145—Mess gear. Chief quartermaster report chronometers wound to the officer of the deck.
- 1158—Report chronometers wound and 12 o'clock to commanding officer.
- 1200—Dinner. Signal (1) fuel expended, (2) fuel on hand.
- 1225—Band call. Band plays from 1230 to 1300 o'clock.
- 1255—If dry, pass word throughout ship: "Stand by scrub and wash clothes."
- 1300—Turn to. Pipe down scrubbed clothes. Pipe down aired bedding. Pipe sweepers. Out smoking lamp. Early liberty for specially designated men.
- 1315—Drills as ordered.
- 1400—Retreat. Light smoking lamp.
- 1410—Ship's work.
- 1555—"Stand by scrub and wash clothes," if dry.
- 1600—Knock off work. Pipe down clothes. Pipe sweepers. Wet down one side of main deck aft for scrubbing clothes. Extra duty call. Extra duty from 1600 to 2100. One-half hour out for supper.
- 1630—Liberty.
- ½ hour before sunset—Deck electricians report anchor lights tested.
- 15 minutes before sunset—Hoist in all boats not required for night running.
- 5 minutes before sunset—First call to colors sounded by all buglers. Call band and guard of the day. Stand by anchor lights. Have current up to ready searchlight.
- Sunset—Colors. Turn on anchor lights. See both lifeboats

WATCH OFFICER'S GUIDE

ready for lowering. Lay up all running gear. House awnings. Test searchlight and night signal apparatus.

1715—Mess gear. Knock off scrubbing clothes. Trice up clotheslines. Dry down and clear up decks.

1730—Pipe to evening meal.

30 min. after pipe to evening meal—Turn to. Pipe sweepers. Obtain permission from executive officer to secure relief motor boats. Extra duty call. Muster extra duty men. Have the coxswains of the power boats, required on board, report for their night and early morning orders and make known where they sleep. Detail night stand-by crew to sleep on main deck, vicinity of anchor watch. Have boats ready. Oil lanterns lighted and ready.

1900—Band call. Concert until 1925 or as ordered. Stand by hammocks. When crew is reported by hammocks, pipe down. Drill as ordered. 8 o'clock reports to executive officer.

1930—Movies when ordered.

1958—Report 8 o'clock to commanding officer.

2000—Muster and instruct anchor watch. After movies report 8 o'clock lights, galley fires, and prisoners.

2100—Set the first anchor watch. Dismiss extra duty men. Tattoo. (Tattoo and taps to be sounded by all buglers on watch.) Pipe down. Secure incinerator.

2105—(Or as ordered) Taps.

2200—Lights out in officers' messrooms except when extension is granted. Report 10 o'clock lights out.

2345—Call relief.

Note.—Inspect lower decks frequently during night.

SURVEY OF THE WATCHES

Midwatch—0000 to 0400.—See that all routine inspections are made by corporal of the guard and junior

officer of the watch and concern yourself particularly with the safety and security of the ship, personnel, and boats. The morning orders should be read and any preparations necessary to assist in their execution begun.

Morning watch—0400 to 0800.—Execute the morning orders. Carry out weekly routine that may be necessary. See that the chief boatswains and boatswain's mates read and are familiar with orders concerning them. Be sure to pass any word about scrubbing mattress covers or bedding at reveille. At turn to hoist out all boats that will be needed for the morning watch. See that running boat is made ready for the early trip. Make sure that all stewards going ashore in the market boat are on deck when the boat arrives alongside.

At sunrise turn off anchor, boom, and gangway lights.

Before washing down the decks give them a clean sweep and see all gear laid up clear, and see that there is sufficient pressure on the deck pump at turn to. Do not allow clothes to be scrubbed before the deck is wet down. At turn to the decks should be wet down and then sprinkled with sand. The decks must then be thoroughly scrubbed as the sand alone will not clean them. In washing down, keep the nozzle of the hose down and away from the hatches and ship's side. Do not let water go over the side. The decks should be dried down by breakfast; all pockets in manhole plates, waterways, and corners of the decks should be thoroughly dried out. Be sure to notify the engine-room when through with the deck pumps.

When the temperature is such that water freezes on the deck, do not wash down. If the executive officer has not provided for this contingency in the morning orders, notify him of the existing state of weather.

When alongside a dock, have sweepers clean it and sweep down.

Orders for side cleaners are usually in the morning orders, have them start work at turn to. Side cleaners

WATCH OFFICER'S GUIDE

should knock off work and punts should be hoisted at 0730, unless permission to extend the time has been obtained from division flagship (or commanding officer when alone). Side cleaners should not be sent over the side after 0800.

When orders and circumstances permit, swimming should be held before breakfast. The men should not be in the water longer than fifteen minutes. At least one boat properly manned, well supplied with life preservers, and in charge of a petty officer should always be at hand whenever there is swimming from the ship. Each ship's organization indicates boats, life preservers, and instructions for swimming.

Clothes may be scrubbed every morning except Sundays and holidays.

Fire hose should never be scrubbed with sand nor on decks covered with sand.

As soon as the uniform signal is made at 0700, send word regarding it to the commanding officer, the executive officer, the police petty officer, the sergeant of marines, and the officers' stewards. When making this report to the commanding officer, inform him of the weather and send in any routine signals or reports he has not received. Have the word as to the uniform and airing bedding passed to the crew at breakfast.

If there is any routine to be carried out at the completion of colors (or shortly thereafter), pass the word or make the necessary calls pertaining thereto before first call so as to be ready for execution at the designated time.

If not in the senior ship present, have the orderly report 8 o'clock to the commanding officer as soon as the senior officer present strikes his bell. If on the senior ship present, report 8 o'clock to flag and commanding officers several minutes ahead of time. The procedure will then be to make it on the senior officer's "make it so." At 8 o'clock with the bell, make colors.

The forenoon watch—0800 to 1200.—Execute morning orders that have not been completed. Carry out routine. If bedding is to be aired, see that it is done promptly on completion of colors and have the police petty officer make inspection to see that all bedding is neatly and properly secured to the life line and that the hammock nettings are empty.

At the call for bright work, see that all hands are busy on their cleaning stations. Make the usual preparations for quarters and, if Saturday, for commanding officer's inspection. At the call "knock off bright work," clear up the deck for quarters, flemish or make up all gear and, if possible, allow men time to get into clean uniform.

As soon as liberty has expired, or if it has expired in the previous watch, check up absentees, report same to the commanding and executive officers and send a written memo to ship's writer's office.

At officers' call notify navigator of the time and condition of the weather. If raining, notify the navigator earlier. Be sure to instruct buglers to sound first call so that it can be heard all over the ship.

As soon as assembly is sounded the executive officer takes charge of quarters, drills, etc., but the navigator relieves the deck. When the drills are not of a general character the deck may be relieved by such officer as may be designated by the commanding officer.

Relieve the navigator at retreat from drill or as soon after drill as possible. After drills sweep and clamp down the decks. In clamping down see that the decks are not soaked, only sufficient water should be used to clean them. Soaked decks can never be made to look clean.

When all mast reports with witnesses and ship's writer are aft, the executive officer should be so informed. The executive officer will usually notify the officer of the deck when to report to commanding officer, but if this is not done, inquire of the executive officer if he is ready

WATCH OFFICER'S GUIDE

for the commanding officer before making the report.

If the chronometers have not been reported by 1145, suggest the fact to the navigator and send for the chief quartermaster.

At noon report chronometers wound and report 12 o'clock using the same procedure as at 0800.

Pipe to dinner.

Afternoon watch—1200 to 1600.—Carry out daily and weekly routine and special orders. Preparations to complete or carry out the preceding should be made as soon as relieving the deck.

The signal for piping down scrubbed and washed clothes and aired bedding, if any, is hoisted by flagships at 1255. The word to stand by for the above should be passed throughout the ship immediately and should also be sent to the engine and dynamo rooms. The piping down should be executed with the hauling down of the signal at 1300. When bedding is aired, it is usually inspected on piping down. If clothes are not dry, the fact should be reported to the executive officer. He will give orders as to where they may be dried.

The regular routine work and special orders for this watch will usually keep the officer of the deck busy, and the boat question will require considerable foresight to meet the numerous demands. Except when in navy yards, nearly all the ship's boats will be in use for one thing or another during the watch and should be in the water in sufficient time for the purpose demanded.

Dog watches—1600 to 1800 and 1800 to 2000 or 1600 to 2000.—Carry out routine and special orders; send liberty parties ashore and send for athletic and other parties on the beach. Where parties are ashore to be returned to the ship, send boats into landings sufficiently early so as to keep men from waiting impatiently on the dock.

Swimming should be allowed, if circumstances, orders, and conditions warrant it.

All anchor, gangway and signal lights should be tested and condition reported to the officer of the deck at least ten minutes before colors.

Colors are made at sunset and all anchor, boom, and gangway lights are turned on with the senior ship. When PREP is hoisted, men should be stationed at the switches to turn on, and on completion of colors they should be required to see that all lights are burning.

At sunset the lifeboat for use in port and at least one searchlight should be reported as ready for instant use. 1945 have 8 o'clock reports fall in unless reports are to be taken before or after the movies.

When circumstances and conditions permit, and it is on the daily work sheet to hold movies, the necessary orders should be given to rig the screen and test the machines. No men except chief petty officers should be allowed to select seats until hammocks have been piped down. Officers should be notified when movies are about to begin and permission to start should be obtained from the commanding officer.

Notify relief. Report 8 o'clock (see morning watch for procedure in reporting 8 o'clock), 8 o'clock lights, and galley fires out and prisoners secure.

First watch—2000 to 2400.—Carry out routine and special orders. If no orders have been given to secure boats, ask the executive his desires in the matter. When coxswains report boats secure, notify them of the time they will be required to be ready for trips. Muster the anchor watch (unless movies are being held) and see that each man knows his station, his relief, and where he billets. Each man should know the coxswain's billet. The watch is assigned to sleep in the same part of the ship for the night. Billets in a special part of the deck in close proximity to the officer of the deck's station are usually assigned for this watch.

If movies are held, delay the above muster until their completion and then have the full anchor watch unrig

and sweep down. See that all men of special working parties who are to be called before reveille are sleeping in the same part of the ship and that the petty officer in charge knows their location.

See that the corporal of the guard makes a thorough inspection after taps. He should inspect the ship and make reports to the officer of the deck every half hour after 2200.

If the morning orders are not on deck at 2200, inquire for them.

BOATS

Boats coming alongside.—The officer of the deck shall inform himself of all boats that come alongside or leave the ship.

He shall report to the executive officer any contemplated movements of the ship's boats of which the latter is presumably not cognizant.

Lying alongside.—Boats should not be allowed to lie alongside except on urgent duty. The gangway must be kept clear for the other boats to use. This rule should be particularly enforced in rough weather.

Line.—The boat line should always be ready for boats coming alongside, and if not rigged a light line of some sort should always be kept near at hand.

Meeting boats at gangways.—The officer of the deck or his representative should be at the gangways on arrival and departure of all boats.

Schedule.—Even though no one is going ashore, the boat schedule should be rigidly adhered to, as there may be some one on the dock waiting to get to the ship. Ship's orders usually cover this subject fully.

Use of boats.—The boats of a ship are for the purpose of transporting personnel and material and should be used without hesitancy, but due regard must be had for the crews of the boats and for the necessary future use of

boats by the officer of the deck. Make one trip do as much as possible. For special trips or short distances, unless there are orders to the contrary, the executive officer should not be bothered. For special night trips or those of extended length, the executive's permission should always be obtained.

Orders to coxswains.—On shoving off from the ship's side, every boat should be given definite orders. No boat, except the captain's or one being used by the executive officer, should be given orders to wait without a limit placed on the time. If such orders are not limited as to time, the officer of the deck will soon find himself without a boat when one is most needed. It is always a good precaution to warn coxswains to look for their recall.

Captain's boat.—The captain's gig should never be used without his express permission. If the business of the ship necessitates, it would be permissible to make such a request through the executive officer.

Supervision of.—The officer of the deck has supervision over all ship's boats, and all other boats making the ship's gangway. In this connection he should pay particular attention to the uniform of the crew of the ship's boat. Boat crews should always be in the same uniform.

Appearance of.—The appearance of ship's boats reflects on the efficiency of the ship and efforts made to improve the personnel and material are well worthy of every consideration.

Inspection of.—The inspection of running boats should always be made after morning colors.

Waiting.—Boats waiting should be given orders as soon as possible and should not be allowed to get out of hail. To keep a visiting captain waiting for his boat shows a lack of alertness, if not inefficiency. If honors are necessary, do not report the boat alongside until all preparations are made.

Waiting definite time.—Boats waiting any definite length of time should be allowed to haul out to the boom. Care should be taken in granting this privilege and if the boat is waiting for an officer, he should be consulted as to his wish in the matter.

Secured alongside.—Boats secured alongside do not fly the ensign, except when ship is full-dressed, nor have running lights shipped, nor should fenders be over except when boats are in close proximity to each other.

Boat colors.—Boats in foreign ports fly the ensign, except as noted above. Boat colors are half-masted with the colors of its ship.

Lookout kept on boats.—A careful lookout should be kept on all ship's boats, and assistance rendered as quickly as possible in case of accident. Assistance should not be restricted to one's own boats. In accidents or breakdowns of other boats, it should be a point of pride to have the first boat at the scene to render assistance.

Boats at booms may not use klaxons to call the boat's crew.

Guard boat.—A boat should always be ready to make the guard trips as per fleet routine; and when a vessel is acting as guard ship, a guard boat should be ready for trips on a moment's notice. Always see that guard boats are provided with clean guard flags before shoving off. Fleet orders cover this subject fully.

Lifeboats.—In port one or both lifeboats shall be kept ready for immediate use from sunset until 0800.

Loading boats alongside.—The officer of the deck is responsible for the loading of all boats alongside and care should be exercised so that the freeboard is not less than that designated. The water may be smooth, but it does not take very long for it to become rough enough to swamp an overloaded boat.

Equipment of boats sent for frozen supplies.—Boats sent for frozen supplies should always be equipped

with tarpaulins. Boats sent for supplies of any sort should always be supplied with a couple of cargo nets. The last two slings should be left in the nets; this facilitates unloading. Boats sent to landings for stores should be also provided with block and tackle.

Supervision of hoisting boats on large ships.—On large ships it is often impracticable for the officer of the deck to personally supervise the hoisting of boats, but he should make certain that the chief boatswain or the boatswain's mate in charge of the boat deck or part of the ship in which a boat is to be hoisted is supervising the operation.

Hoist boats.—Except in well-landlocked ports, before sunset, hoist all boats for the night that will not be needed for early trips. Permission to do this can easily be obtained from the executive officer, and it will save the night watches much trouble in breaking out hands to pick up boats that have gotten adrift or are knocking themselves to pieces against the side of the ship.

When at anchor in open waters, such as the southern drill grounds, boats should be well provisioned.

Securing boats for night.—Orders for securing boats for the night emanate from the executive officer and none should be secured without his permission. If the captain or admiral should give orders to secure their boats, the executive should be notified. Except when boats lie astern, they should be secured at both bow and stern. Boats lying astern should have a good bight of line to ride on and in rough weather this should be long enough to ride easily.

Fueling power boats.—The best time for fueling boats is generally in the morning watch.

Fire in motor boats.—Fires in motor boats may be best extinguished by the use of CO₂ extinguishers, flooding to the gunwales, extensive use of sand, or by foam type extinguisher.

Boat equipment.—Boats must always be fully

equipped including compasses, life buoys, life jackets, and an anchor.

Controlling boats from the ship.—On large ships, except when hoisting, lowering, or having a line made fast, it is impracticable for the officer of the deck to control the movements of boats and, except in cases of emergency, it is best to leave the coxswains to their own resources.

Precautions against freezing.—All precautions should be taken in cold weather to prevent freezing of water and oil in boats. This not only applies to boats in the water, but to those in the skids as well.

The engines of motor boats should be turned over regularly every hour in freezing weather and more frequently if necessary.

BEING RELIEVED

When being relieved it is well to follow a mental check-off list of the items. In this connection read again the first pages of this chapter. If conditions permit, an officer may pass the last few minutes of his watch in running over or jotting down important items, particularly as concern unexecuted orders which, unlike course, speed, and formations, might be overlooked.

In this connection it is well to remember that while his responsibility as officer of the deck ends when an officer is relieved, he remains responsible for anything that may go wrong due to inaccuracies or omissions in the information furnished his relief.

The log.—The ship's log is the only complete official record of the ship during her commission. It is imperative that the log be not only complete but also accurate and clear. Because of the many routine inspections required to be entered in the log it also serves as an important check on these inspections being made. The log is covered in considerable detail in Chapter XIX.

PART III
MISCELLANEOUS

Chapter XVII

RELATIVE MOVEMENT
OF SHIPSTHE MANEUVERING BOARD FOR WATCH
OFFICERS

Get a clear conception of what "relative movement" is and thoroughly understand the "speed and direction triangle." With this basis, maneuvering board problems for watch officers are simple.

Relative movement is your ship's movement in relation to the guide (or other ship or point on which you base your maneuver). It is represented in direction and amount by the line traced by your ship's successive positions, viewed from the guide, as your ship proceeds from its former to its new position.

Speed and direction triangle.—The direction of each side of the triangle represents a course (direction of movement) and the length of each side represents a speed (rate of movement); the whole triangle, therefore, represents six elements:

Side *eg*:

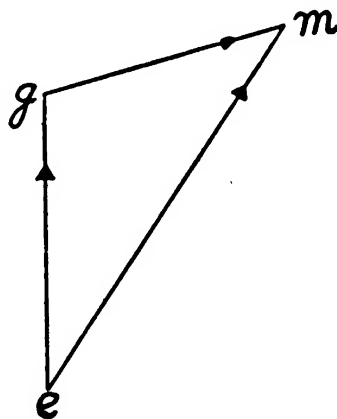
- (1) Course of guide.
- (2) Speed of guide.

Side *em*:

- (3) Course of ship.
- (4) Speed of ship.

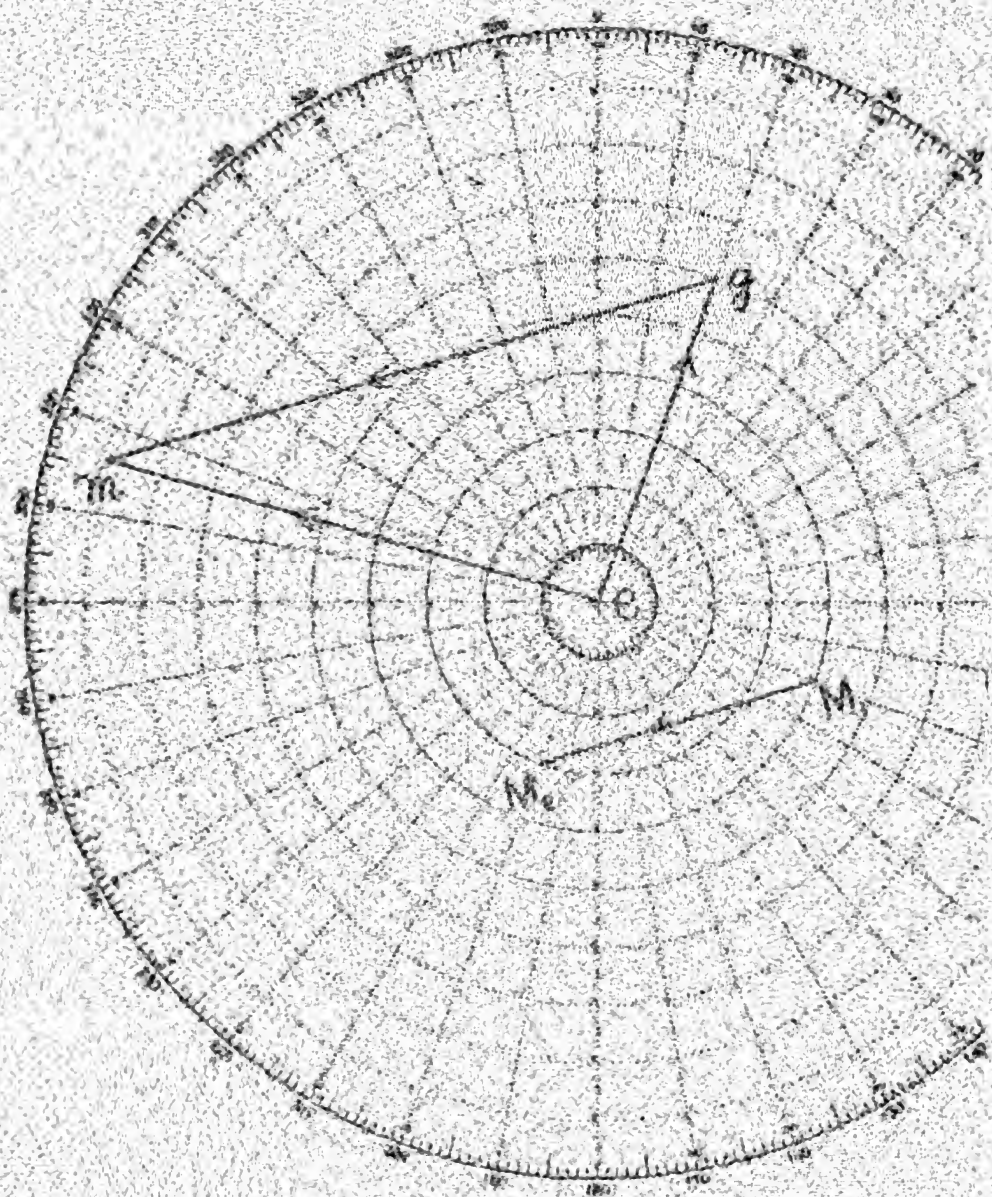
Side *gm*:

- (5) Direction of relative movement.
- (6) Rate of relative movement, or "relative speed."



WATCH OFFICER'S GUIDE

The direction of movement is always as indicated by arrows, that is, eg and em are drawn from the center of diagram, e , and gm is always from g toward m .



In your most common problem,
You know (1) and (2), course and speed of guide, also
(5), direction of relative movement (from present to new
position).

You decide on your course, (3), and want to know what speed to take, (4), or

You decide on your speed, (4), and want to know what course to steer, (3).

In the semi-independent maneuvers of extended dispositions, it may be necessary to determine the time to reach position, as the best means of determining when to resume the guide's course. In this case you must determine relative speed, (6), from the triangle, and relative distance, i.e., distance from present to new positions as plotted.

Standard plotting on maneuvering board diagram.—

(1) Guide (or other ship on which maneuver is based) always at center of diagram.

(2) Present position, M_1 ; new position, M_2 .

(3) Guide, relative, and ship sides of triangle—*eg*, *gm*, and *em*, respectively, with *e* at center of diagram.

(4) Arrows on all lines indicating direction of movement.

Typical course and speed problem (see figure).

Guide's course, 20 degrees, speed 12 knots.

Your present position, 4 miles on starboard beam of guide. To take position 3 miles astern of guide, using a speed of 18 knots.

(1) Draw relative movement line M_1M_2 .

(2) Construct triangle.

(a) Draw *eg* (guide's side of triangle) in direction 20 degrees from center representing 12 knots (2 knots per space).

(b) The *direction* of the relative movement, *gm*, side of the triangle, is the *direction* of line M_1M_2 . With parallel rulers, draw *gm* in that direction, from *g*, marking it with an arrow, away from guide.

(c) The length of the ship side, *em*, of the triangle

WATCH OFFICER'S GUIDE

is the speed (18 knots) you are to use. Using same scale as for *eg*, it is apparent that *em* is a radius of the 9-space circle. The intersection of *gm* with this 9-space circle locates direction of side *em*.

(3) Read off, from triangle, the direction of *em*. This is your course to reach desired position at 18 knots—in this case 286 degrees.

Variation. (1).—Often your maneuvering speed is not prescribed, and your problem is to choose a convenient combination of course and speed which will carry you to the new position.

From an examination of *eg* and *gm* in the figure, the following values of *em* could be selected from an infinite number of possible values:

<i>Your Speed</i>	<i>Your Course</i>
14 knots	297 degrees
13.2 knots	300 degrees
12 knots (same as guide)	307 degrees
10 knots	327 degrees or 358 degrees

The last case above is an example of the double solution obtained when the *gm* line cuts a speed circle twice. This can occur only when *em* is less than *eg*.

Variation. (2).—In most practical cases, the direction of relative movement can be obtained without plotting your position. For example:

Situation.—You sight the flagship several miles distant, bearing 85 degrees, on course 10 degrees, speed 12 knots. You have steam for 20 knots.

Order received.—Come within hail of flagship immediately.

Required.—Your course for speed of 20 knots.

Solution.—

(1) Draw *eg* for 12 knots and 10 degrees.

(2) Since you are to close the flagship, relative movement must be in the direction of the flagship. In other

words, the direction of gm is the same as the bearing of the flagship *from you* or 85 degrees.

(3) Hence, draw gm from g , in direction of 85 degrees. Where gm cuts the 20-knot circle determines the direction of em , which is your course—49 degrees.

Similar cases.—

(a) When increasing distance without changing bearing. Here the direction of relative movement is your bearing from the guide.

(b) To pass ahead or astern of a ship or between two ships. Here the direction of relative movement is found by taking a bearing of a point comfortably ahead, astern, or between ships to be cleared.

(c) To join a formation, in which your position is near other ships. Take a bearing on your position in formation as being between two ships, or ahead, astern, or otherwise near a ship. This is the direction of desired relative movement line.

TIME PROBLEMS

The time required to reach your new position is determined by the relative distance and the relative speed.

Relative distance is represented by the length of line M_1M_2 (from present to new position) measured in miles to the same scale as used in plotting these positions.

Relative speed is (6) of the triangle and is represented by the length of the gm side, measured in knots, to the same scale as the eg and em sides.

Having thus obtained the relative distance and relative speed, the time for the maneuver is obtained by a nomogram scale, speed-distance table, simple arithmetic or graphic approximation.

A nomogram for solution of speed-time-distance problems appears on the maneuvering board diagram. It consists of three scales: (1) time scale, (2) distance scale, and (3) speed scale. The latter two scales may be useful for either relative or actual distances or speeds.

WATCH OFFICER'S GUIDE

Given any two corresponding quantities, solve for time by laying a straight edge through the points on two of the scales and read the intersection on the third scale.

Graphic method.—Note that the *gm* side of triangle represents to *distance* scale, relative distance traveled in 60, 30, 20, or 15 minutes, according as *speed* scale is full, one-half, one-third, or one-quarter. If you measure *gm* with dividers and step off its length along M_1M_2 , you obtain the number of these time intervals required to complete the maneuver.

For further information on the subject of the use of maneuvering boards, the watch officer is referred to *Navigation and Nautical Astronomy* by Dutton.

*Chapter XVIII***INCIDENTS DURING
THE WATCH****REPORTS TO CAPTAIN**

Navy Regulations specifically prescribes a number of reports that are to be made to the captain, but these reports do not comprise all the reports that should be made.

It is better to make too many rather than too few reports. A safe rule to follow is, when in doubt, make the report. When reporting a change of course, sighting aids to navigation, or anything important by the messenger or orderly, it is better to send a written memorandum to the captain, otherwise the report might be given to the captain incorrectly. At sea, if the captain is on the bridge, or in port on the quarter-deck, all reports should be made to him, in person.

The following incidents which frequently arise are enumerated with the corresponding action which should be taken by the officer of the deck in each case.

INCIDENT	WHAT TO DO
Accidents to equipage, materials, etc.	Require full reports from officers or petty officers of all damage to government equipage or material, including how damaged, when, responsibility for, extent of damage, etc. Log fully. Report to executive and also to captain if serious. Send slips to

WATCH OFFICER'S GUIDE

INCIDENT	WHAT TO DO
	head of department concerned and supply officer.
Afirm, use of, in getting under way in formation.	After signal to get under way is executed, half-mast afirm when anchor is at short stay; run all way up when anchor is aweigh; haul down when ready to take and hold position in formation. At night; turn on running and speed lights when anchor is aweigh.
Aids to navigation sighted.	Identify as soon as possible. Report to captain and navigator. Get bearings of, note time sighted, and log.
Ammunition comes aboard.	Report to captain, executive, and gunnery officer. Notify ordnance gunner. Order chief police petty officer and corporal of guard to put out smoking lamp and extinguish unauthorized lights and fires. Hoist powder flag (BAKER). Log fully amount taken; kind of shell; number of charges of each index; from whence received; by what authority, etc.
Ammunition is sent from the ship.	Report to captain and executive, hoist powder flag. Out smoking lamp. Cover ammunition with tarpaulin when on deck for any length of time and in transit. See powder flags in bows of all boats carrying ammunition. See memorandum receipts on tug, before she shoves off; get them from gunnery office.

INCIDENT	WHAT TO DO
<p>Anchor or running lights go out.</p> <p>Anchor, at, in tideway.</p>	<p>Haul down powder flag.</p> <p>Log fully (see above).</p> <p>Send for electrician. Have quarter-master rig stand-by oil lights.</p> <p>Have an efficient lookout stand by life buoys.</p> <p>Get from log anchorage bearings.</p> <p>Take round of bearings as soon as possible after relieving.</p> <p>Put over drift lead; get range on shore.</p> <p>Be prepared to veer or to drop another anchor. In special cases get permission from the captain to drop anchor under the forefoot, leaving the brake off.</p>
<p>Bags or hammocks to be served out.</p>	<p>Notify first lieutenant, division officers, boatswain. Division officers usually send men to break out their division bags and hammocks. They are served out at quarters and results reported in memorandum form to first lieutenant. Report completion to executive officer.</p>
<p>Barge, oil, coming alongside.</p>	<p>Report to captain, executive officer, and engineer officer. Notify boatswain.</p> <p>Make preparations to receive. See properly placed and secured. Hoist BAKER and out smoking lamp.</p> <p>Log time of arrival, where placed, and from whence received.</p>
<p>Bells, striking of.</p>	<p>Follow motions of flagship or senior officer present in this respect.</p>

WATCH OFFICER'S GUIDE

INCIDENT	WHAT TO DO
Binnacle lists.	If the medical officer wishes to place a man on the sick or binnacle list, he sends name to officer of the deck on a slip requesting permission. The commanding officer grants this permission, normally through the executive officer. Send slip to executive officer.
Board of Survey comes on board.	Report to captain. Have messenger show them to ward-room. Notify head of department concerned and supply officer.
Boat crews away during meals.	Order commissary steward, chief police petty officer, and ship's cook to save hot meals for them.
Boat, power, needs refueling.	Follow ship's routine, enforcing strictly all safety precautions.
Boat, power, breakdown.	Tow boat to ship, if necessary. Inform engineer officer of watch. Report to executive officer, after an inspection, how long boat will be laid up.
Boats, heavy, to be hoisted out or in.	Notify boatswain or chief boatswain's mate of boat deck. Allow only certain skilled men to operate cranes. Notify logroom.
Boat requested by officer.	Request permission of executive to use boat and report her return to executive or as per special ship's instructions.
Boats at booms.	Have boat keepers in uniform of day. See boats in order and properly secured, fenders out, etc.

INCIDENT	WHAT TO DO
Boats running.	<p>Do not allow boats' crews to sleep on decks of boats at boom.</p> <p>See salutes made to officers in passing boats.</p> <p>Carry out schedule, whether anyone is going ashore or not. Shove boats off on time, both from ship and shore. Do not permit a running boat to be diverted by stopping at other ships or landings. See the coxswain knows landing in use and the compass courses to the landing from the ship and to the ship from the landing. See boat fully equipped with running lights at night, fog horn or klaxon, life jackets.</p> <p>Do not overload.</p> <p>Have tarpaulin in boat if going for stores.</p>
Book, General Signal, whereabouts of.	<p>Make sure the signal officer informs you of its location, if he leaves the deck or bridge.</p>
Bugle calls.	<p>Follow flagship or senior officer present in sounding routine calls.</p>
Buglers, messengers, etc.	<p>See in proper uniform at all times.</p> <p>See that they remain at hand, except when engaged on duty that takes them away from station.</p>
Calls for men, not answered.	<p>Direct petty officers of division concerned to send men at once.</p>
Calling committee comes aboard.	<p>Send to president of mess concerned and show guests to the proper mess room.</p>

INCIDENT	WHAT TO DO
Captain—commanding officer.	Note distinction between captain and commanding officer. The captain is ordered as such by proper authority—any line officer may be temporarily in command.
Captain or executive leaves or returns to ship.	Notify next junior line officer. When captain leaves see that boat cloth is in boat.
Captain wishes to be called.	Called by his orderly. Report weather conditions to him when you call him.
Chain cable parts.	Let go another anchor immediately. Buoy position of lost anchor at once, if not already done. Notify captain, executive, first lieutenant and boatswain.
Change of course in accordance with previous orders.	Get captain's permission if he is on bridge. If not, change as directed, then report the change and the time to captain and navigator at once. Written memorandums are advisable.
Change of course or speed—emergency.	Make necessary change, then report to captain change made and necessity for it. Report when back on original course or speed.
Chronometers.	At 0745 or 1145 ascertain from navigator if chronometers are wound. Report their condition to captain at 8 A.M., or at noon, according to the custom of the particular ship.
Clocks, set at sea.	Request comes to set clock. Send to chief quartermaster to set clocks.

INCIDENT

WHAT TO DO

	Usually done after 11 A.M. (See Zone Time.)
Clothes left about decks.	Send to police petty officer and have them placed in lucky bag. If clothes are wet when piped down obtain permission from executive to hang in a designated place and have such word passed.
Clothes, piping down, when acting singly.	Usually done at 1130 or 1300. Carry out work sheet. Ascertain by messenger if dry. Have word passed. Notify engine-room by telephone. Send to chief police petty officer to take care of clothes of men absent. Pipe down with bell. Do not allow clothes to hang about decks. See clothes line is weeded.
Clothes, scrubbing.	Do not allow outside of routine hours and regular places. Men have habit of getting into corners and scrubbing when decks are not wet, thus leaving soap stains. Do not permit wet clothes to be hung in unauthorized places. A line is provided for that purpose.
Collision, danger of, exists.	Sound general alarm, one long blast of siren, warning howlers. Close water-tight doors. Maneuver ship to obtain glancing blow, if impossible to clear. At anchor: Be prepared to veer, to rig in booms and to clear the side. Report to captain.
Collision, occurs.	Same signals. Notify captain, executive, engineer officer, first lieutenant,

INCIDENT

WHAT TO DO

	and gunnery officer of location of injury and have word passed by boatswain's mate. Sound assembly on bugle.
Colors.	Hoist smartly at first note. See that halyards are taught. Lower colors at first note very slowly. Never allow the colors to touch the deck or ground.
Colors, boats, at boom.	See colors of boats riding at booms unshipped, except when ship is dressed.
Colors, dipping.	Answer dip for dip, rounding up immediately. Do not wait for other vessel to do so. See man stationed by colors in going into or out of port for this purpose.
Colors, shifting.	Shift from port to steaming colors (a) when anchor is aweigh; (b) when last line has been cast off from dock. Shift from steaming to port (a) when anchor is let go; (b) when first line is ashore. See one set chock up before other is hauled down.
Commanding officer's boat approaches flying pennant.	Notify captain. Call guard of day and four side boys, unless commanding officer is of rank of lieutenant commander, then two boys only. Render prescribed honors when he comes on board.
Court, general, or, of inquiry.	On meeting, notify captain. When it adjourns, notify captain; log, giving president of court, time of meeting,

INCIDENT	WHAT TO DO
Court, summary.	and adjournment and object of court. Notify captain of both meeting and adjournment. Log, giving times, name of senior member, and names and rates of persons tried.
Details, port, how called.	Anchor watch calls relief; quartermaster calls officer of deck's relief; chief police petty officer calls buglers, ship's cooks, boats' crew. Corporal of guard calls his relief and other orderlies.
Discharged, enlisted man is to be.	Obtain discharge papers from executive's office and make sure all formalities and paper work are completed. When man is ready to leave ship, give him his discharge.
Dishes reported dirty.	Report to captain. Log. Send for chief police petty officer and man in scullery. Investigate. Report to first lieutenant and commissary officer.
Divine service on board.	Sound church call. Toll the bell. Hoist church pennant at same staff with ensign, but above it, lowering ensign. Permit no disturbances or card playing. Out smoking lamp. Smoking is not permitted during divine service anywhere on board ship.
Draft comes on board.	Report to captain and executive. Notify commissary steward, supply officer, and chief police petty officer. Send to executive officer's yeoman for station billets.

WATCH OFFICER'S GUIDE

INCIDENT	WHAT TO DO
	Log names, rates, from where received, and whether bags, hammocks, and necessary papers were also received.
Extra duty.	Remember that "extra duty as a punishment shall be discontinued on Sundays."
Fire.	Sound general alarm. Ring ship's bell rapidly, followed by a number of strokes to indicate location. Bugler sounds "to fire quarters." Boatswain's mate passes word as to location of fire. Send word to engine-room. Notify captain and executive officer. If a drill, see that hoses are played over lee side and proper general signal is hoisted.
Fire alarm, rings, automatic.	Have investigation made in magazines. Report to captain, executive, and gunnery officer.
Fire main leaks.	Notify first lieutenant and carpenter. If necessary to shut off system, get permission from captain. Notify executive.
Flag officer or captain comes alongside when captain is away.	Notify commanding officer. Have honors ready; go down gangway ladder and inform visiting officer before he leaves his boat that the captain is not on board. The fact that he did not come on deck is no excuse for not rendering suitable honors.
Flag officer's boat approaches, flag flying.	Call full guard and band. Have side boys, to which visitor is entitled, ready. Notify captain.

INCIDENT	WHAT TO DO
	Render prescribed honors on arrival and departure.
Flag officer passes close aboard in boat flying flag.	Call guard of day and band. Render honors as prescribed, when he passes.
Fog comes up.	In port: Notify captain. Set watch on ship's bell to sound fog signal. Station necessary lookouts. Under way: Notify captain. Start fog whistle. Station additional lookouts. See that these are properly clothed. If possible, rig weather screen to protect them. Close all water-tight doors not necessary for communication. If in formation, get over position buoy and train searchlight on it. Get signal gun ready, ammunition up and gunner's mate on watch with it. Sound fog signal immediately after ship ahead.
Food, enlisted man complains of.	Send for commissary steward and messman. Investigate. Inform commissary officer. Inform executive, if necessary.
Fresh paint.	Do not wash down. Under certain circumstances do not sweep down the decks.
Fueling ship.	Hoist BAKER at fore truck. Engineer's force connect up hose and mans filling valves. Out smoking lamp. Carpenter takes draft before and after. Log amount received.

WATCH OFFICER'S GUIDE

INCIDENT	WHAT TO DO
Gasoline comes on board.	Stow 50-gallon drums on weather deck. If fitted with gasoline tanks, carry out ship's routine. Hoist powder flag. Out smoking lamp. Extinguish all unauthorized lights and fires. Notify supply officer and executive officer.
Guard mail to go.	Call away guard boat. Send officer or petty officer to captain's office for guard mail. Send boat to division flagship to deliver mail. See guard flag in boat and officer or petty officer in prescribed uniform. Fleet routine shows time to send guard boats.
Hammocks, procedure at.	Sound hammocks. Have crew fall in abreast nettings. Have chief police petty officer report all up. Have silence maintained. Trice up hammock cloths and pipe down. Allow no hammocks to be taken from nettings before being piped down. See hammock stowers restow uncalled for hammocks. Have inspection made for this.
Hatches, engine and dynamo.	Allow no men to sleep over these hatches or to hang clothes thereon.
Hatch tarpaulins.	Never permit hatch tarpaulins to be used for anything except covering hatches.

INCIDENT	WHAT TO DO
Land, discolored water, breakers, wrecks, etc., sighted.	Report to captain and navigator. Get bearings. Log.
Liberty party to leave.	Pass word for liberty party to fall in. Inspect for uniform. Embark in boats, but do not overload. Police petty officer inspects cards as they go over the side. Inform party at what hour and place liberty expires.
Liberty party returns.	Have chief police petty officer at gangway to inspect men for intoxication or bringing back unauthorized articles. Have box ready to deposit cards. Report to executive and captain the names of any men who have overstayed liberty, this preferably by written memorandum.
Lifeboats, readiness of.	Coxswains of both lifeboats report boats ready for lowering at sunset. At sea coxswain of lifeboat's crew of the watch reports both boats at beginning of each watch.
Life buoys tested.	Tested once a week and when getting under way. Done by ordnance gunner. Log.
Lights, extension requested by officers.	Request comes through chief police petty officer. Send request to captain or commanding officer. Send his answer to persons concerned.
Lights of vessel sighted at sea.	Take bearing by pelorus and check change of bearing to ascertain if risk of collision exists.

INCIDENT	WHAT TO DO
Lights, running. Loud speaker system.	Report to captain. Check own running lights. Have their condition reported every half hour at sea, with the bell. In using loud speaker systems, the boatswain's mate must cut in only those stations concerned. Then in clear tones "Now hear this, Jones, seaman first class, second division, report to the officer of the deck." It should not be repeated. There is a general tendency to use this system unnecessarily. Reduce its use to a minimum.
Magazine fire alarm sounds.	Have gunnery officer investigate at once. Notify gunner and gunnery officer. Report to captain and executive.
Magazine inspection.	Daily. Ordnance gunner hands in a slip giving maximum and minimum temperatures, and reports that the magazines and powder samples have been inspected and found in normal condition. Send report to captain and log the fact entering temperatures in the columns of the log. (Gunner also reports weekly inspection of shell rooms, flood cocks, and sprinklers, and results thereof.)
Man-of-war passes close aboard.	Report to captain. Call guard of the day and band. When ships overlap sound attention; guard presents arms; band plays national anthem; hand salute by every one

INCIDENT	WHAT TO DO
	in sight on deck during anthem; order arms; carry on. Above done if ship is going on or has been on detached duty or is a foreign man-of-war. National anthem of passing vessel is played.
Man-of-war reported standing in.	Report to captain. Have above honors ready if ship passes close aboard.
Man is injured.	Log, with time and place of anchoring. Send to sick bay for treatment. Get report from medical officer. Investigate fully how it occurred and find out whether or not in line of duty. Log fully.
Man over-board. (At anchor.)	Report to captain. Day: Away lifeboat. Power boats available to rescue. Let go life buoy if near man or heave over a ring buoy. Notify captain, executive, and medical officer. Night: Same. Anchor watch mans lifeboat. Turn on searchlight to locate man.
Man over the side.	Never permit a man to go over the side without a bowline on him well tended on deck.
Man reported missing from ship.	Have careful search of ship and boats made by ship's police. If not found, report to captain and executive. Log that man is missing from the ship without permission from proper authority with the time.

WATCH OFFICER'S GUIDE

INCIDENT	WHAT TO DO
Man returns overtime from liberty or absence without leave.	Send for chief police petty officer. Examine man. Report to captain and executive. Log, including time of return.
Mast, reports at the.	When all reports are at the mast, together with <i>all</i> witnesses, including officers, inform the executive, who usually personally reports ready to the captain.
Meal hour delayed.	Inform commissary officer and steward and chief police petty officer.
Meal hours of crew.	Meal pennant is hoisted at port yard-arm only when at anchor. Boats are permitted to be absent only when on urgent public duty. All side honors are dispensed with for United States officers except courtesies by officer of the deck.
Morning order book.	Contains instructions for officer of the deck, having morning watch. See returned to executive's office by 0800.
Offense. Police petty officer brings man to the mast.	Investigate. If serious, report to executive. If the case warrants immediate punishment, send to executive and captain.
Officer reports aboard for duty.	Inform executive officer. If not in uniform, show him to a room where he may shift. Log fully, including file numbers of orders.
Oil or paint spilled on deck.	Have wiped up at once, then carefully scraped by man or men responsible. Whitewash the spot.

INCIDENT	WHAT TO DO
Orderly—time.	Detailed by executive, both at sea and in port—reports all routine occurrences, as given in sea and port routines.
Overboard, throwing things.	Permit no wood nor unpierced metal cans <i>nor anything that will float</i> to be thrown overboard at sea or in port. A ship might be trailed by these means.
Overtime men, effects of.	Have chief police petty officer secure their bags, hammocks, and ditty boxes and stow in lucky bag for safe keeping.
Pay officer brings government money on board.	Report to captain. Log the amount and from whence received.
Pay officer sends government money from ship.	Have line and buoy attached to money bag. Log amount and authority for the transfer. Notify captain.
Pilot comes aboard.	Have boat line and sea ladder ready, if necessary. Have officer meet him. Report to captain. Log name and time.
Pilot leaves ship.	Have boat line and sea ladder ready, if necessary. Notify paymaster. Report to captain. Log.
Planes to be handled.	Notify senior aviator and petty officer in charge of catapult detail.

WATCH OFFICER'S GUIDE

INCIDENT	WHAT TO DO
Ports, air, at sea, not to be opened.	Allow no air ports to be opened at sea without permission from the captain. Have those on lower decks closed at sunset. Carpenter's mate reports condition of air ports and soundings at least twice each watch during night.
Position buoy to be rigged.	Notify boatswain and petty officers of division concerned.
Prisoner sent from ship.	Send under guard of a petty officer (armed) with necessary papers. Get papers from captain's or executive's office. Log details. Report to captain.
Prisoner to be confined.	Have police petty officer confine him. Report confinement to captain and executive. Log details.
Prisoner to be released.	Obtain captain's permission. Send to chief police petty officer to bring the man to mast and then release and restore to duty. Log details. Report to captain.
Provisions, fresh, come on board for general mess.	Send for medical officer to inspect for quality. Send for supply officer, or pay clerk, to inspect for quantity or weight. Log amounts, contractor, weights of various provisions received, and name of inspecting officer.
Rain squall comes up.	Pipe down aired bedding or scrubbed clothes, if up. Haul over hatch hoods, gun and searchlight covers.

INCIDENT	WHAT TO DO
<p>Recorder of summary court-martial wishes to deliver specification.</p> <p>Reports at 2000</p>	<p>House awnings. Remove plugs from uncovered boats in skids. Slack all halliards and running gear.</p> <p>Have police petty officer bring man to the mast. If under sentry's charge, obtain captain's permission.</p> <p>Report to captain when confined again Log.</p>
<p>Reports, officer of the deck, to commanding officer.</p> <p>Request at mast.</p> <p>Salute, gun, to be fired.</p>	<p>Notify executive officer. Following departments are reported: Engineer, supply, ordnance, and construction and repair. Engineer and supply made by officers of department, not at mast. At the mast there should be the boatswain, the gunner, the carpenter and the pharmacist (or their mates) and the chief police petty officer and the captain of the fresh water hold.</p> <p>If commanding officer is below, made by his orderly.</p> <p>If commanding officer is on quarter-deck, when at anchor or on bridge under way, make all reports to him in person, if at all possible to do so.</p> <p>Notify executive.</p> <p>Call saluting guns' crews to quarters. Notify gunner of number of guns to be fired and whether on arrival or departure, or both. See scrubbed clothes piped down before saluting. If flag is required, see rounded up to</p>

INCIDENT

WHAT TO DO

	truck in stops <i>beforehand</i> , broken with first gun, and hauled down with last, if proper to do so.
Ship drags her anchor.	Report to captain and executive. Notify boatswain. Get steam on anchor engine and man to operate it. Veer chain. Stand by the other anchor and let go if necessary, veering chain on the anchor already down. In extreme cases ship will get up steam.
Ship dips to you before 0800.	Hoist colors at peak. Answer dip and then lower colors. No ceremonies.
Ship in danger of dragging her anchor.	Put over drift lead with a seaman to attend it. Get range on shore. Get good compass bearings of objects on shore. Feel chain for tremors. Keep alert for jarring of ship when starting to drag. Stand by to veer chain and let go another anchor.
Ship in dry dock.	See fire hose connected to yard fire main. Have engineer officer, gunnery officer, first lieutenant, and carpenter report all outboard sea valves closed for the night. Report to captain. See all fires used by navy yard workmen on board extinguished. Have chief police petty officer inspect for this.

INCIDENT	WHAT TO DO
Ship under way before 0800 or after sun-down during daylight.	If man-of-war, hoist colors. Do not wait for senior officer present to hoist colors.
Showers, no water in.	Send to first lieutenant for permission to fill tanks. Notify captain of fresh water hold.
Signal lights fail.	Send for electrician. Notify electrical officer of ship.
Signal, official, received.	Send to commanding officer. See all signals recorded as soon as received. Remember that "a signal and its meaning shall never be entered together in the ship's log or other record."
Signal, official, sent.	Must be by authority of commanding officer, unless emergency. Not signed. Send to bridge for transmission. Report to captain when sent and acknowledged.
Signals, uniform.	Notify captain and executive, marine officer, chief police petty officer, first sergeant, and stewards of officers' messes. Have word passed by boatswain's mate of watch.
Signal, unofficial, received.	Deliver to officer to whom addressed.
Signal, unofficial sent.	Must be released by captain. Send to bridge for transmission.
Siren sounded by accident.	If by accident a blast of siren is sounded, when whistle should have been used, sound three blasts of siren at

INCIDENT

WHAT TO DO

	once to open water-tight doors, unless this will confuse a steamer in sight.
Sleeping near side, hatches, etc., forbidden.	Allow no men to sleep near open hatches, or near side, where they may roll off and be injured.
Stations for petty officers of watch.	See in uniforms at all times. Be especially careful that they remain at all times on station within hearing distance, unless their duty calls them away. This applies particularly to boatswain's mate and quartermaster of watch.
Steam heat wanted.	Send to engineer officer on duty. In case of doubt request advice of senior medical officer.
Steering engine to be tested before getting under way.	Send to chief quartermaster and machinist's mate in charge of steering engine. Have steam turned on by sending word to engineer officer on duty.
Stores, canteen, come aboard.	Notify supply officer, canteen yeoman, and chief police petty officer. See means taken to prevent looting. Log contractor and number of packages of various articles and by whom inspected.
Stores, general or small, come aboard.	Report to executive officer. Notify supply officer or heads of departments concerned. Furnish supply officer with working party to stow.

INCIDENT	WHAT TO DO
Stores, commissary, come aboard.	<p>Notify executive, commissary officer and steward. If fresh provisions, notify medical officer, who inspects for quality. Supply officer, or his representative, inspects for quantity.</p> <p>Log fully, including amount, kind, from whom received, and name of inspecting officer.</p>
Stores, officers' messes. Straggler from another ship comes aboard.	<p>Send for stewards and mess attendants of mess concerned to handle stores.</p> <p>Report to captain and executive officer.</p> <p>Send for chief police petty officer.</p> <p>Log fully.</p>
Sunday.	<p>Guard and band are not paraded for United States ships or officers and no salutes are fired. Other honors are rendered. Work is reduced to a minimum. No extra duty performed.</p>
Swimming, crew requests.	<p>Request permission from executive officer, reporting temperature of water. If granted, sound "swimming" call; call away pulling boat; see it is supplied with life belts. See life buoys and belts handy on ship. Lower booms.</p> <p>Sound "overboard" call when all is ready.</p>
Taps, extension requested.	<p>Do not permit men to hang on to boat nor to go far out from ship.</p> <p>Have request come from chief police petty officer or other chief petty officer.</p> <p>Ask permission from executive officer</p>

WATCH OFFICER'S GUIDE

INCIDENT	WHAT TO DO
	and from captain or commanding officer.
Target to be rigged between stacks.	Inform gunner.
Target, towing, to be put over.	Have gunner rig completely. Have boatswain put over and hoist aboard.
Enlisted man comes aboard intoxicated.	Send for police petty officer or corporal of guard. Report to captain and get permission to place man under sentry's charge to sober up. Log. Report to executive officer and captain when done. If late at night, confine him and report in the morning.
Time and uniform signal at 0700	Inform captain and executive officer. Send change to officers' messes (servants). Notify marine officer, chief police petty officer, and marine sergeant. Pass word by boatswain's mate of watch at breakfast to shift into uniform of the day during breakfast hour.
Torpedo is lost at practice.	Report to captain. Log methods and periods of search. Log serial number of torpedo.
Transferred, enlisted man is to be.	See all work preliminary to transfer completed. This includes signing pay accounts, examination by medical officer, that custody record is clear, and bag and hammock ready. Get transfer orders and ticket if nec-

INCIDENT**WHAT TO DO****Transfer of
sick man.**

essary from captain's or executive officer's office.

The man's service record and health record are forwarded by mail, or by petty officer in case one goes with the transferred man.

Notify the medical officer when transportation is ready.

See his effects and papers go with him, by hospital apprentice. These include health record, service record, and hospital ticket. If sent in ship's boat, see line on stretcher as man goes over the side.

Log.

**Underway at
hour indicated.**

Make all preparations for getting underway: Steering engine tested and ready; all communications between bridge, and engine-room, central station and steering-engine room tested; gangways rigged in or triced up; lower booms rigged in and boats hoisted. See executive officer before hoisting last boat. See steam on anchor engine and engine tested and ready. Test whistle, siren, signal gear, and life buoys. Have anchor gear ready. Get permission from captain to turn over main engines when engineer officer reports ready. Be ready to heave short when ordered. Fifteen minutes before time set, have sea details at stations, men in chains, chain tierers below. Five minutes before time to get under way sound

WATCH OFFICER'S GUIDE

INCIDENT

WHAT TO DO

**Veer chain in
emergency.**

"Officers' call" if "All hands" are to be called. Report "Ready to get under way" to captain and executive officer. At the time set sound "Assembly" and call "All hands up anchor," or call "Watch up anchor" without the "Assembly," if "All hands" are not to be called.

Send for boatswain.

If the captain orders "Veer to fathoms" when riding to single anchor and a gale is blowing, station petty officer (carpenter's gang) by friction brake, set up on it, cast off stoppers. See all clear in chain locker, slack brake and veer to scope desired. Set brake, put on stoppers, slack brake until strain comes on stoppers, then set up again. Report to captain ". . . . fathoms at water's edge, chain secured."

Report to executive officer and first lieutenant.

Log.

In a sudden emergency, when time is precious, do above first and then report to captain.

**Visiting party
comes
aboard from
another
ship.**

Man in charge comes aboard and asks permission for party to visit aboard.

Send to executive officer; if permission is granted, allow party to come aboard. Man in charge has muster list which you retain.

When time of visit expires, call aft by

INCIDENT

WHAT TO DO

**Visitors want
to come
aboard.**

boatswain's mate and muster, return list to man in charge, and have party embark in their boat.
Obtain permission from executive officer; if permitted, allow to come aboard. Instruct them to keep clear of officers' quarters, not to go below second deck, in turrets, or conning tower. No cameras allowed. If they come aboard in shore boat, have boatman return for them.

**Water boat
comes
alongside.**

Inform chief police petty officer. Usually customary to detail men to show visitors about the ship.

Notify executive officer, engineer officer, supply officer, and first lieutenant.

Inform engineer officer of the watch by telephone. Inform captain of fresh water hold. If a local lighter, log owner, time of coming alongside and shoving off, and amount of water taken.

**Water-closets
choked up.**

Notify first lieutenant and carpenter. Send for ship fitter.

**Weather,
heavy,
coming on.**

Have everything about decks well secured and extra lashings put on boats and anchors if necessary. Run life lines along the gangways. Keep men clear of places where they are liable to be washed overboard. Have forecastle and weather hatches battened down and ventilator openings secured.

WATCH OFFICER'S GUIDE

INCIDENT

WHAT TO DO

**Working party
to be sent for
stores before
reveille.**

See power boats ready beforehand. Such working party should be detailed the previous evening, uniform prescribed, and all details worked out then, such as petty officers in charge, coffee, etc.

Require to sleep in one compartment; call in plenty of time.

See mustered in boat.

**Zone time,
changing of.**

On advice of navigator, get permission from the captain. Inform all messes, heads of departments, have quartermaster set clocks ahead or back. Log.

*Chapter XIX***THE LOG**

The log is the only complete official record of the ship during her commission. It is imperative that the log be not only complete, but also accurate and clear. Because of many routine inspections required to be entered in the log, it also serves as an important check on their being made. The officer of the deck is responsible for the accuracy and completeness of all entries, by whomsoever made.

Upon completing his watch at sea or in port, it is the duty of the officer of the deck to write up the remarks in the deck log, verify the columns, and sign his name. Writing the remarks must not be deferred, but must be done while the events of the watch are fresh in the memory of the officer having the duty. It is better to enter events as they occur so that nothing remains to be done at the end of the watch but to verify the columns and sign the remarks. It is required that the ship's log shall be a careful, detailed, and accurate record of current events. It is frequently used as evidence before courts and boards and it is consulted in many cases which come up years later, such as requests for pensions. The smooth log is the ship's official log book and is a correct and certified copy of the deck log. Therefore, officers should take pains to collect all the data required and to enter them into the deck log, using the proper phraseology.

Article 1078 (1) of the U. S. *Navy Regulations* implies that the officer of the deck must make the entries during or at the completion of his watch; however, in cases of collision or salvage, it is of great importance to obtain a full and complete story. Therefore, under these circum-

stances it is advisable not to write up the events directly in the rough log. Instead write them up on another sheet of paper and promptly submit them to all concerned and finally to the navigator and captain. Then enter these remarks in the rough log.

There must be no erasures in the rough log. In civil courts the rough log and quartermaster's notebook are considered better evidence than the smooth log. Any erasure in them opens to question their competency as evidence.

The navigating officer has charge of the preparation of the log. By the regulations he is required to carefully examine the deck log book to see that it is prepared in accordance with instructions and to call the attention of watch officers to any inaccuracies or omissions in their entries. The navigator is responsible to the commanding officer that the entries in the log are in proper form, but the officer of the deck is responsible for the entries during his watch and, unless directed by orders of the commanding officer, he is not compelled to make changes in any entry he may have made.

The regulations require that the smooth log shall be signed by the watch officers and the navigator and submitted to the commanding officer for his approval daily. The navigator, generally through his yeoman, makes the log available in the wardroom convenient for watch officers to sign prior to noon. All officers having watches should sign the smooth log before noon.

The deck log should always be written and signed before leaving the deck. The deck log should never be taken from the deck except to be copied ("turn to" in the morning watch is a good time for this) or when requested by the navigator or called for by executive officer or commanding officer.

Every watch officer should frequently read "Directions for Keeping the Ship's Log" and "Extracts from the

United States Navy Regulations, 1920, Relative to the Log," both of which are in the front of the rough "Deck Log Book" (N. Nav. 330).

In case of reduced visibility (below 4,000 yards) the officer of the deck should discuss the matter with those on watch, such as lookouts and quartermaster, in order to determine as accurately as possible the true distance of visibility. The quartermaster, then and only then, should be instructed to enter this distance in the proper data column of the rough log. Under remarks should be entered the stationing of fog lookouts, signals, and reduction of speed.

The following scale may be used to bring columns 14 and 18 into agreement.

<i>Scale</i>	<i>Visibility</i>	<i>Weather</i>	<i>Symbol</i>
(Column 18)	(in yards)		(Column 14)
0-1	0-1,000	fog	f
1-12	1,000-12,000	mist or	m
		rain	r
2-12	2,500-12,000	haze	z

INSTRUCTIONS FOR WRITING THE LOG

ABSENTEES

At quarters.—

0900 mustered crew at quarters (or on stations). Absentees: Doe, J., (Sea. 1c); Door, W.T. (Sea. 2c), both U.S.N.

Return of.—

2200 Doe, J., (Sea. 1c) U.S.N. returned absent over leave (or absent without leave) since 0800, January 1, 1941.

or

2200 Doe, J., (Sea. 1c) U.S.N.R. in civilian clothes was delivered on board by the civil authorities of San Fran-

WATCH OFFICER'S GUIDE

cisco, having been absent over leave (or without leave) since 0800, January 1, 1941.

or

.2200 Doe J., (Sea. 1c) U.S.N. was delivered on board under guard from the Receiving Ship, San Francisco, having been absent over leave (or without leave) since 0800, January 1, 1941.

NOTE.—(1) If in clothing other than uniform, so state.

(2) There is no distinction between absent overleave and over liberty. Both are entered as absent overleave.

(3) Avoid the use of abbreviations "A.O.L." and "A.W.O.L."

AIDS TO NAVIGATION

0105 sighted Bowery Point Light bearing 178 (t), distant about 18 miles.

0235 passed Bowery Point Light abeam to starboard, distant 2.5 miles.

NOTE.—The navigator will furnish required distances on request.

AMMUNITION

1300 received from Ammunition Depot, Mare Island, Calif., 400 rounds 3" 50 cal. AA ammunition SPDX 1599; 300-5" 51 cal. projectiles, target; 300-5" 51 cal. charges, reduced, SPDX 1720.

ANCHORING

1500 anchored in Berth B-5, Los Angeles Harbor, California, in 7 fathoms of water, mud bottom with 60 fathoms of chain to the port anchor, on the following bearings———

NOTE.—If other men-of-war, United States or foreign, are present, list such ships, and their nationalities if foreign (See also Men-of-war).

BEARINGS

On the data side of the log enter one radio direction

finder bearing each day when under way. This must give the bearing, the distance, and the error.

BOILERS

Lighting off.—

0900 lighted fires under boilers Nos.

Cutting in.—

1000 cut in boilers Nos.
on the main steam line.

Disconnecting.—

2300 let fires die out under boilers Nos.
.....and cut out same at 2330.

Safety valves.—

The simple entry "Tested safety valves on all steaming boilers" or "Tested safety valves on boilers Nos. 1, 2" is sufficient. Pressure at which valves lifted and reseated should not be entered in deck log.

BOARDS

NOTE.—If president or senior member of a board is attached to another ship, the name of his ship should be entered, after his rank.

Examining board.—

1000 a naval supervisory examining board, Comdr. A.B.C., U.S.N., president, convened by order of in the case of Lieut. X.Y., U.S.N., met on board and adjourned at 1100 (First entry).

(Second and successive days.) 1000 the naval examining board in the case of Lieut. X.Y., U.S.N., met.

1600 the naval examining board in the case of Lieut. X.Y., U.S.N., adjourned.

(Last day.) 1700 the naval examining board in the case of Lieut. X.Y., U.S.N., adjourned, having completed the examination of the candidate.

NOTE.—(1) If each day's meeting and adjourning occur in different watches, two separate entries are required.

WATCH OFFICER'S GUIDE

(2) If more than one candidate is appearing before the board, name each, grouping the names.

Inquiry.—

1100 a court of inquiry, Lieut. Comdr. X.Y.Z., U.S.N., senior member, convened by order of in the case of the late A.B., (Sea. 1c), U.S.N., met on board and adjourned at 1130 to await action of convening authority.

or

Adjourned to meet ashore at the scene of death of the late A.B., (Sea. 1c), U.S.N.

or

Adjourned to meet on board U.S.S.

Investigation.—

0900 a board of investigation, Comdr. X.Y.Z., U.S.N., U.S.S., senior member, convened by order of to inquire into met (Original entry).

1400 the board of investigation, Comdr. X.Y.Z., U.S.N., senior member, adjourned to await action of convening authority.

or

1500 the board of investigation, of which Comdr. X.Y.Z., U.S.N., is senior member, adjourned to meet on board at 0900 tomorrow.

In case the board consists of but one member, enter as follows:

1000 Comdr. X.Y.Z., U.S.N., acting as a board of investigation, convened by order of, to inquire into, opened his investigation.

Survey.—

0900 Lieut. A.B.C., U.S.N., Navy Yard, Mare Island, came on board and surveyed certain articles of equipage in the engineering department.

or

1000 a board of survey, of which Lieut. A.B.C., U.S.N.,

is senior member, met on board and surveyed certain items of equipage in the gunnery department.

CARGO

Receiving.—

0315 commenced receiving cargo and bunker fuel oil from dock (or U.S.S. *Neches*). Draft of ship fwd. aft.

1017 completed taking fuel oil, having received bbls. grade "C" bunker fuel oil, at 60° F. Draft of ship fwd. aft.

Discharging.—

0713 commenced discharging cargo gasoline to dock. Draft of ship fwd. aft.

1146 completed discharging cargo gasoline to dock, having delivered gallons, at 60° F. Draft of ship fwd. aft.

1214 delivered to U.S.S. *California* via gasoline delivery boat gallons cargo gasoline.

NOTE.—(1) When continuously fueling ships, log draft of ship before commencing discharge to first ship and after completion of discharge to last ship.

(2) If draft of ship has just been logged (as after entering port or after completion fueling of another ship), do not re-enter it.

COURTS-MARTIAL

General.—

0900 a general court-martial Comdr. X.Y.Z., U.S.N., president, convened on board by order of, to try the case of Lieut. A.B., U.S.N.

1600 the general court-martial of which Comdr. X.Y.Z., U.S.N., is president, adjourned to await action of the convening authority.

Summary.—

1200 a summary court-martial, Lieut. Comdr. X.Y.Z., U.S.N., senior member, met to try the case of A.B., (Sea.

WATCH OFFICER'S GUIDE

1c), (service no.) U.S.N. and C.D., (Cox.), (service number) U.S.N. and adjourned at 1530 to await action of the convening authority.

0830—Ensign Smith, recorder summary court-martial, served copy of specifications on Doe, John (Sea. 1c), U.S.N.

Deck.—

1100 a deck court, Lieut. X.Y.Z., U.S.N., met to try the cases of A.B., (Sea. 1c) (service number) U.S.N. and CD., (F. 3c) (service number) U.S.N., and adjourned at 1300.

1320 the deck court which met at 1100 adjourned.

Sentences.—

1100 published the findings and sentence in the case of Doe, J., (Sea. 1c), (service number) U.S.N., tried by general court-martial (summary court-martial), (deck court) for absence over leave. Finding: guilty; sentence: confinement for days, extra police duties during said confinement, and to lose pay amounting to \$..... Approved by convening authority and (Senior Officer Present) or (Immediate Senior in Command) (dates).

1100 Doe, J., (Sea. 1c) (service number) U.S.N. having been tried by the general court-martial of which Comdr. X.Y.Z., U.S.N. is president, for fraudulent enlistment and found not guilty, was released from confinement and restored to duty by order of captain (commanding officer).

COURSE

Setting of.—

(Course is "set" upon taking departure and upon completion of maneuvers at sea.)

1000 with Los Angeles Harbor Light abeam to starboard, distant 300 yards, took departure and set course 185 (t), 186 (pgc), 179-15 (psc).

1030 lowered pitometer log, reading 59.5.

1430 completed fleet maneuvers and set course 280 (t) in obedience to signal from Combatfor, batdivs in cruising

formation No. 3, strong division on right, intermediate on left, with U.S.S. *California*, fleet guide. U.S.S. *Pennsylvania*, division guide, followed by U.S.S. *Arizona*, *Oklahoma*, and *Nevada* in that order.

NOTE.—(1) Be careful to so state formation and relative position of ships, that in case of subsequent investigation into any casualty whatever, a clear picture may be drawn from the log, but do not divulge confidential information.

(2) During protracted exercises at maneuvers, do not enter every change of course or evolution (See Maneuvers).

(3) If bearing or courses are given by magnetic compass only, then the ship's head and the deviation on that heading must be logged.

Change of.—

1030 changed course to 075 (t), 076 (pgc), 078-30 (psc).

or

1930 with Pt. Wilson Light abeam to port, distance $1\frac{1}{4}$ miles, changed course to 283 (t), 284 (pgc).

NOTE.—If uncertain as to bearing or distance of object on which course is changed, ask the navigator.

DEATHS

1520 Doe, J. B., (Sea. 2c), (Service No.), U.S.N., died from

DESERTERS

Doe, J., (Sea. 1c), (Service No.) U.S.N., was this date declared a deserter from this vessel and the naval service having been absent overleave (or absent without leave) since 0800 January 2, 1941.

DISCHARGES

1110 Doe, J., (B.M. 2c), Service No.) U.S.N.R., was discharged from this vessel and the naval service

with an honorable (ordinary) discharge by reason of expiration of enlistment.

1110 Doe, R., (Sea. 2c), (Service No.), U.S.N., was discharged from this vessel and the naval service with a bad conduct discharge in execution of the sentence of a summary court-martial.

1110 Smith, K., (F. 1c), (Service No.), U.S.N., was discharged from this vessel and the naval service as undesirable, with an ordinary discharge, by order of the commanding officer.

DRAFT—(SEE TRANSFERS)

DRILLS

(There is a space on the left-hand page of each day's log for entry of drills. When drills are held, entry must be made therein.)

Fire.—

1000 exercised at fire quarters. 1003 first stream at scene of fire. 1010 secured from fire quarters.

Collision.—

1015 exercised at collision quarters. 1019 collision mat in place (or ready to put over). 1025 secured from collision quarters.

Abandon Ship.—

1026 exercised at abandon ship stations. 1040 secured from abandon ship stations.

Fire and Rescue Party.—

1042 exercised fire and rescue parties. 1044 first fire party (embarked and) ready to leave ship. 1045 rescue party ready. 1046 secured fire and rescue parties.

Man Overboard.—

1050 held man overboard drill. 1053 first boat in the water. 1058 man recovered (or search for man abandoned). 1103 boat hoisted. 1104 secured from man overboard drill.

General Quarters.—

1056 exercised at general quarters. 1145 went into condition of readiness No. 2, port watch. 1151 secured from condition of readiness No. 2 and set regular sea watch.

Gun Drills.—

1000 exercised at gun drills.

NOTE.—(1) When all drills for the day have been completed, log "1104 sounded retreat from drills," or "1104 piped down from drills."

(2) Should battle problems or simulated firing during tactical exercises take place while at general quarters, enter pertinent data, if not confidential.

ENLISTMENTS**Re-enlistments.—**

A.B., (Sea. 1c), (Service No.) U.S.N., this date re-enlisted on board this vessel for a period of

Extension of.—

C.D., (F. 1c), (Service No.) U.S.N., this date extended his enlistment for a period of

FLAGS, PERSONAL**On leave.—**

1000 U.S.S. hauled down flag of and broke commission pennant.

On return.—

1400 U.S.S. broke flag of and hauled down commission pennant.

Shifting of.—

0900 Combatfor shifted his flag from to

FUELING (SEE ALSO CARGO)

1000 commenced fueling ship. Draft of ship fwd.
 aft Draft of fuel ship fwd.
 aft

1600 completed fueling ship, having received on board

WATCH OFFICER'S GUIDE

..... bbls. of fuel oil at 60°F. Draft of
ship fwd. aft. Draft of fuel ship
fwd. aft.

NOTE.—The obtaining and recording of all the above data is important. Require the carpenter to obtain the drafts of the two ships. Get number of bbls. of oil received from the senior engineer officer.

GENERAL MESS

Provisions.—

Received following stores for the general mess, inspected as to quantity by Lieut. A.B.C. (SC), U.S.N., and as to quality by Lieut. Comdr. D.E.F. (MC), U.S.N., from Cramer's Inc., 200 lb. potatoes, irish,

NOTE.—(1) For ship's store supplies, change "provisions" to "supplies." No inspection as to quality is required.

(2) Art. 1400, U. S. *Navy Regulations*, requires an officer of the supply corps, or a pay clerk, or other officer, designated by the commanding officer, to inspect as to quantity, all fresh provisions for general mess and stock for ship's store.

Survey of provisions.—

By order of the captain (commanding officer)
..... were thrown overboard (destroyed),
having been condemned by the medical officer as unfit
for use.

HARBOR, ENTERING

1326 passed Los Angeles Harbor Light abeam to port, distant 900 yards, entering Inland Waters. On various courses standing up harbor to anchorage, captain at conn, executive officer, and navigator on the bridge. 1337 anchored, etc.

or

1320 stopped. 1323 pilot J. A. Jacobsen came aboard. 1324 resumed standard speed. 1326 pilot took the conn.

1330 passed Los Angeles Harbor Light abeam to port, distant 1,000 yards, entering Inland Waters. Standing into Los Angeles Inner Harbor on various courses and speeds conforming to channel, pilot at conn, captain and navigator on the bridge. 1400 moored port side to, etc.

NOTE: Always enter when going into or leaving inland waters.

HULL BOARD REPORT

Whenever the ship is docked in a dock other than that owned by the Navy or when docked outside the continental United States, the hull report must be copied into the log, using additional sheets, signed by the members of the board.

INSPECTIONS (SEE MAGAZINES)

By admiral.—

0900 Commander Base Force, accompanied by his staff and an inspection board from U.S.S. , came on board, breaking his flag, and began surprise (annual military) (material) inspection.

1030 Commander Base Force, staff, and inspection board left the ship.

NOTE.—(See "Shifting of personal flags" for further entry).

By captain.—

1315 captain (commanding officer) inspected holds and lower decks forward (aft) (port) (starboard).

or

0930 held quarters for muster, followed by captain's commanding officer's) inspection of the crew and upper decks. Absentees

1315—Made weekly inspection of steering gear. Condition satisfactory.

INJURIES

Personnel.—

1035 Doe, J., (Sea. 1c), (Service No.) U.S.N., received

WATCH OFFICER'S GUIDE

..... while at drill, due to

NOTE.—Enter full account of all injuries, both as to extent of same, obtained from medical officer, and cause, with circumstances.

Material.—

1022 U.S.S. in coming alongside carried away 39 feet of this ship's port life lines forward, with stanchions and indented ship's side to a depth of 4 inches over a space of 10 feet long and 4 feet high in vicinity of frames Nos. 46-51.

or

1135 starboard lifeboat was carried away by heavy sea, and all equipment lost.

or

Boat compass No. was lost overboard from first motor launch by Sea. 2c U.S.N.

INVENTORIES

Commenced annual inventory of equipage and supplies in the custody of the supply officer.

Commenced annual inventory of equipage in use in the navigation department.

Completed annual inventory of equipage in use in the engineering department.

LEAVE

Log all naval personnel going and returning from leave.

MAGAZINES

Inspection.—

Made daily inspection of magazines and smokeless powder samples. Conditions normal.

Flood cocks.—

Made weekly inspection of magazine flood cocks and tested operating gear. Condition satisfactory.

Made weekly test of magazine sprinkling valves. Condition satisfactory.

Temperatures.—

Daily record of maximum and minimum magazine temperatures must be entered in the log, in the space provided on left-hand page. Ordinarily this should be done in the forenoon watch. If no report is made by 1600, send to the gunner and require report.

MANEUVERS

0930 commenced exercises at maneuvers of the battle line, captain on the bridge, Combat for as officer in tactical command and continued thereafter until 1130 when went into cruising formation No. on signal, U.S.S. fleet guide, first division on third on, this division in natural order, with U.S.S. division guide. Standard speed knots (r.p.m.). Set course (t) (pgc).

or

1130 commenced exercises at maneuvers of battle line, captain on the bridge, and continued thereafter during remainder of watch.

or

1730 ceased exercises at maneuvers of the battle line and went into cruising disposition no. with officer in tactical command in U.S.S. as fleet guide, batdiv 2 in sector, 3 in sector, this division in sector Attained assigned position at 1940, and took standard speed of 14 knots (r.p.m.) and signaled course (t) (pgc).

NOTE.—There are, of course, other forms of tactical maneuvers, and other formations taken upon conclusion of same, but the above are specimen entries indicating that no attempt should be made to enter the very many

WATCH OFFICER'S GUIDE

changes of course and speed during a forenoon's or afternoon's tactical exercises. The specimens also show how the disposition of units on conclusion of the exercises should be clearly indicated. Too much detail should be avoided and this is mandatory in the case of certain formations, the arrangement of which is confidential.

Standard speed in knots and revolutions per minute (r.p.m.) should be entered. The latter of course changes with time out of dock and load conditions.

MEN-OF-WAR AND GOVERNMENT VESSELS

Movement of.—

1100 U.S.C.G. *Shawnee* got under way and stood out of harbor.

1130 H.M.S. stood into harbor and anchored at in berth assigned.

Upon anchoring.—

After entering data about anchorage bearing.

Following men-of-war at anchor in harbor, U.S.S., H.M.S., H.I.J.M.S., etc.

MOORING

1006 moored port side to Standard Oil Dock, Berth 76, Los Angeles Inner Harbor, California.

0610 moored starboard side of U.S.S. *Indianapolis* in berth B-5.

Other ships.—

1000 U.S.S. *Pensacola* got under way to shift berth.

1014 U.S.S. *Pensacola* moored alongside to starboard.

or

1143 Destroyer Division Sixteen got under way to shift berth. 1150 U.S.S. *McCormick* moored alongside to starboard. 1158 U.S.S. *Simpson* moored alongside to port. 1211 U.S.S. *MacLeish* moored alongside to starboard outboard of *McCormick*. 1218 *Truxtun* moored alongside to port outboard of U.S.S. *Simpson*.

OFFICERS

Arrest of.—

By order of Commander Battleship Divisions, Ensign A.B.C., U.S.N., was this day placed under arrest by the captain (commanding officer) to await trial by general court-martial.

Detachment.—

1300 pursuant to Bu Nav order No. Lieut. (jg) D.E.F. (MC), U.S.N., was detached from this vessel and ordered to duty at

Passengers.—

1300 pursuant to Combatfor, letter of Lieut. A.B.C., U.S.N., reported on board for passage to

or

1300 by permission of commanding officer, Ensign A.B.C., U.S.N., on leave of absence from U.S.S. came on board as a passenger to

Promotion.—

Entry should be made in the log when an officer accepts his new commission and executes the oath of office.

Reporting.—

1300 pursuant to Bu Nav order No. of (date) Lieut. A.B.C., U.S.N., reported for duty on board this vessel.

NOTE.—If order specifies for what duty, enter same.

Suspension of.—

By order of the captain (commanding officer) Lieut. Comdr. A.B.C., U.S.N., was this date suspended from duty for a period of days for

Suspension (arrest), release from.—

By order of the captain (commanding officer) Lieut. Comdr. A.B.C., U.S.N., was this day released from suspension (arrest) and restored to duty.

NOTE.—In case of arrest or suspension from duty of officers, or release therefrom, the captain usually sends a

WATCH OFFICER'S GUIDE

written memorandum to the officer of the deck covering the circumstances, and this should ordinarily be copied verbatim into the log. Do not enter private reprimands.

Temporary duty.—

1300 pursuant to Cincus letter No. Lieut. A.B.C., U.S.N., reported on board this vessel for temporary duty in connection with

Temporary duty away from ship.—

1300 pursuant to Combasefor letter No. of Ensign X.Y.Z., U.S.N., left the ship for temporary duty on board U.S.S.

Temporary duty, Completion of.—

1300 Lieut. D.E.F., U.S.N., left this vessel, having completed temporary duty in connection with

Temporary duty, return from.—

1300 Ensign X.Y.Z., U.S.N., returned on board and resumed his regular duties, having completed temporary duty on board U.S.S.

ORDERS

Publishing of.—

0915—Held quarters for master. No absentees. Published General Order 98 to all hands.

PASSENGERS

Any passenger must be logged with the authority for his passage; time he came aboard and time he left the ship.

PUNISHMENT

Enlisted personnel.—

The captain (commanding officer) held mast and assigned punishments as follows:

Name	Rate	Service No.	Offense	Punishment
.....
.....

Officers.—(See Officers.)

PRISONERS**Confinement of.—**

1410 by order of the captain (commanding officer), Doe, J., (Sea. 1c), U.S.N., was placed in solitary confinement on bread and water for 10 days, full ration every 3rd day, in execution of the sentence of a summary court.

Confinement, Release from.—

1410 by order of the captain (commanding officer), Doe, J., (Cox), U.S.N., was released from confinement and restored to duty, the period of confinement imposed on him by summary court-martial, (assigned him at mast) having expired.

or

1410 by order of captain (commanding officer) Doe, J., (Cox), U.S.N., was released from confinement and restored to duty, the uncompleted period of confinement imposed on him by summary court-martial having been remitted.

At large.—

1410 by order of the captain (commanding officer) the following men were made prisoners at large to await trial by summary court-martial

Safe-keeping.—

1410 Smith, K., (F. 1c), U.S.N., having returned from liberty in a drunken and disorderly condition, was placed in confinement for safe-keeping by order of the commanding officer.

or

Was placed under sentry's charge for safe-keeping.

SALUTES

Log with details all gun salutes in the vicinity.

SHIPS SIGHTED

Ordinarily, when the log is written up at the end of a watch any necessity for making note of ships sighted has

WATCH OFFICER'S GUIDE

ceased. In crowded waters a strict record of ships sighted, with identity, bearing, approximate course of same, should be kept, so as to be available for use in the investigation of any subsequent casualty. If all danger of collision has ceased, and no other exceptional circumstances make it pertinent to the record, every ship sighted need not be entered, as to do so needlessly lengthens the log. Sighting ships close aboard at sea where risk of collision is involved is of sufficient interest to warrant mention in the log, but to record all ships encountered during a passage, say from Cape Flattery to Seattle, is to uselessly encumber the log. Common sense should be the guide.

STEERING GEAR (SEE INSPECTIONS)

TIDE

Swinging to.—

1056 commenced swinging to flood tide, stern to starboard and completed swinging at 1135.

or

1130 commenced swinging to ebb tide, stern to starboard.

or

1120 completed swinging to ebb tide.

Rips.—

1125 took rank sheer to starboard, because of heavy tide rip.

TRANSFERS

1530 pursuant to Combatfor, letter of Doe, J., (F. 3c), (Service No.), U.S.N., was transferred with bag and hammock, to U.S.S., records and transfer papers to follow by mail.

or

1530 pursuant to Bu Nav order No. of Roe, R., (Sea. 1c), (Service No.), U.S.N., was transferred with bag and hammock to U.S.S.

....., records and transfer papers forwarded by registered mail.

or

1530 pursuant to of Roe, R., (CMM), (Service No.), U.S.N., was transferred with baggage to U.S.S., records and transfer papers forwarded by special messenger.

NOTE.—If several men are transferred to same ship or station, group their names. If several men are transferred in same watch to different ships, enter the preliminary clause once only and then write:

To the U.S.S. Doe, J., (Sea. 1c), (Service No.) U.S.N.

To the U.S.S. Roe, R., (Cox), (Service No.) U.S.N.

1153—Jones, W. T. (Pvt.) U.S.M.C. transferred to U.S. Naval Hospital, San Diego, California, for treatment. Rifle, baggage, records, and transfer papers accompanied patient.

In general, always log an enlisted man by name, initials, service number and service. (U.S.N., U.S.N.R., U.S.C.G., U.S.A., U.S.M.C.). Enlisted men are transferred. Officers are detached. Chief petty officers are transferred with "baggage, records, and transfer papers." Other enlisted men are transferred with "bag, hammock, records, and transfer papers."

UNDER WAY

0800 made all preparations for getting under way. 0815 got under way for Balboa, C.Z., in obedience to movement order no. (or despatch) of (date), captain at conn, executive officer, navigator on the bridge, standard speed knots (..... r.p.m.), standing out of San Francisco Harbor on various courses conforming to the channel. 0845 with Fort Point Light abeam to port, distance

WATCH OFFICER'S GUIDE

1,500 yards, changed course to 240 (t), 240-30 (pgc). 0915 with Point Bonita Light abeam to starboard, distance 2,500 yards, changed course to 250 (t) 250-30 (pgc). 0920 entered International Waters. 1000 slowed to one-third speed knots. 1005 entered dredged channel through San Francisco bar, leadsmen in chains; least sounding obtained, 9 fathoms. 1015 cleared dredged channel and set course 160 (t), 160-30 (pgc). 1020 resumed standard speed. 1025 with San Francisco Light vessel abeam to port, distance 2.5 miles, took departure, set course 179 (t), 179-30 (pgc).

UNMOORING

1546 under way from Standard Oil Dock, Berth 76, Los Angeles Inner Harbor, California, in obedience to (etc., as in "Under way").

Other ships.—

1610 U.S.S. *Pensacola* got under way from starboard side and stood down harbor and at 1628 anchored in berth assigned.

VISITORS

1300 rigged ship for visitors. 1630 last visitors left the ship. Total number of visitors during the day 473.

VISITS, OFFICIAL

1000 captain (or commanding officer) called officially on the commanding officer, U.S.S., and commanding officer, U.S.S.

1100 the commanding officer, U.S.S. called officially on the captain.

1115 Commander Battleship Divisions, accompanied by his chief of staff and an aide, returned the official call of the captain.

WATCHES

Under way.—

0 to 4

Steaming under boilers Nos. 1, 2, and 3, on course 170

(t), 171 (pgc), 173-45 (psc), standard speed 12 knots (72 r.p.m.), en route San Pedro, California, to Balboa, C.Z., with cargo fuel oil, gasoline, and light freight (in salt water ballast with partial cargo light freight). 0111 sighted steamer bearing 170 (t), distant 10 miles. 0115 changed course to 185 (t), 186 (pgc), to avoid steamer. 0136 resumed base course. Average steam 201. Average r.p.m. 71.8.

Other watches.—

8 to 12

Steaming as before. 0915 mustered crew on stations. No absentees. Made daily inspection of magazines and smokeless powder samples. Conditions normal. Average steam 210. Average r.p.m. 72.0.

At anchor.—

0 to 4.

Anchored in berth E-8, Los Angeles Harbor, California in 7 fathoms of water, mud bottom, with 45 fathoms of chain to port anchor. Auxiliary boiler in use for auxiliary purposes. Ships present: U.S.S. *Pennsylvania* (SOPA), California, Battleship Division One less *Oklahoma*, Battleship Division Two, Cruisers, Scouting Force less *Chicago* and *Pensacola*, *Argonne*, *Medusa*, *Relief*, *Vestal*, and various small craft. Bearings of anchorage: Los Angeles, Harbor Breakwater Light 256 (t), Long Beach Breakwater Light 359 (t), ship's head 300 (t).

NOTE.—(1) In logging ships present, log by larger units or ships, whichever requires the least space in the log.

(2) When at anchor, column 6 in the log is for recording the ship's head. At the top always check either "gyro" or "mag." Anchorage bearings must be taken and logged once a day, as a safeguard against dragging.

Other watches.—

4 to 8

Anchored as before. 0410 U.S.S. *Medusa* under way

WATCH OFFICER'S GUIDE

and stood out of harbor.

Moored.—

0 to 4

Moored port side to Pier 7, Norfolk Navy Yard, Portsmouth, Virginia (starboard side to pier, Berth 96, Los Angeles Inner Harbor, California). Receiving following services from shore: fresh and salt water, steam, electricity, and telephone. Ships present: etc., (as under "At anchor").

Other watches.—

4 to 8

Moored as before. 0355 heavy fog set in; visibility reduced to 500 yards; commenced fog signals, and stationed special lookouts. 0455 fog lifted, visibility 4000 yards. Discontinued fog signals and secured lookouts.

WORKMEN

0805—The following navy-yard workmen came aboard for work in the engineering department: foreman, No. 1432, four machinists, Nos. 1673, 83, 47, 972.

*Chapter XX***HONORS AND CEREMONIES****NAVAL ETIQUETTE**

Honors and ceremonies are based on a long established code of custom, agreement, and regulations, which in general are common to all navies. With a few important exceptions, these honors and ceremonies occur in port, and the manner in which they are rendered or carried out under the supervision of the officer of the deck does much to make for smartness. When rendering honors and ceremonies to foreign countries or officials they should be conducted in a manner reflecting credit on the Navy and the United States.

It is well to divide honors into two classes—those which must be memorized and those which the officer of the deck will normally have time to look up and which should not be trusted to memory. "Tables of Honors" are usually posted in the vicinity of the quarter-deck.

The officer of the deck should be letter perfect as to honors for United States and foreign military officers of all branches. The honors for "ships passing and being passed" and officials passing in boats close aboard should be memorized as it will often happen that there will be insufficient time to consult the "Tables of Honors."

The question of whether or not to give a salute will generally be decided by the captain or by the flag officer or unit commander if a flagship, but the firing of the salute, as well as the execution of all honors and ceremonies, will be in the hands of the officer of the deck.

With honors and ceremonies, as with nearly all activities of the officer of the deck, it is important to look ahead. Generally speaking, he should be able to estimate

accurately the degree of readiness required under existing conditions. Anchored in bad weather on drill grounds, there is no need of keeping side boys standing by. On another occasion it may be necessary to have the full guard and band ready on a moment's notice.

He should be kept informed of the situation as to prospective honors and insist that the quartermaster keep a sharp lookout for approaching officials, and especially for boats flying personal flags, command or commission pennants.

One of the most embarrassing situations to the visitor, the admiral, or the captain, and to the officer of the deck, is to have an official reach the deck without the proper officer being there to receive him. The officer of the deck must make sure of getting word to, or otherwise informing, the admiral, captain, flag lieutenant, and executive officer in sufficient time for them to be on deck.

The subject of honors and ceremonies is covered in Chapter 5, *Navy Regulations*, which should be read from time to time and always be kept available. Some of the more important regulations are quoted here for ready reference and "Tables of Honors" are inserted in pocket inside of back cover.

Personal Salutes and Deference Shown to Seniors

N.R.
264 (1) The starboard gangways to the quarter-deck shall be used by commissioned officers, warrant officers, and their visitors; the port gangways shall be used by all other persons.

N.R.
265 All officers and men, when reaching the quarter-deck either from a boat, from a gangway, from the shore, or from another part of the ship, shall salute the national ensign. In the event the ensign is not hoisted this salute shall be tendered only when leaving or coming on board ship. In making this salute, which shall be entirely distinct from the salute to the officer of the deck, the person

making it shall stop at the top of the gangway, or upon arriving upon the quarter-deck, face the colors, and render the salute, after which the officer of the deck shall be saluted. In leaving the quarter-deck, the same salutes shall be rendered in inverse order. The officer of the deck shall return both salutes in each case, and shall require that they be properly made.

The commanding officer shall clearly define the limits of the quarter-deck; this area shall embrace so much of the main or other appropriate deck as may be necessary for the proper conduct of official and ceremonial functions. When the quarter-deck so designated is forward and at a considerable distance from the colors, the salute to the colors prescribed in the preceding paragraph will not be rendered by officers and men except when leaving or coming on board the ship.

Officers seated in boats shall not rise in rendering and returning salutes except when a senior enters or leaves the boat or when acknowledging a gun salute.

N.R.
267
(4) (5)

Officers and enlisted men when on board ship shall salute flag officers, the captain and all officers senior to themselves from other ships on every occasion of meeting, passing near, or being addressed. They shall salute all officers senior to themselves attached to the same ship on their first daily meeting, and upon addressing or being addressed by their seniors. They shall salute the executive or other senior officer when that officer is making an official inspection. At other times when the progress of a senior may be impaired officers and men shall clear a gangway and stand at attention facing the senior officer until he has passed.

Men at work, except when addressed by an officer or called to attention, shall not be required to render a salute. A man in formation shall not salute; but, if addressed he shall stand at attention.

N.R.
267 (1)
(2) (3)

Men seated at work, at games, or at mess are not re-

quired to rise when an officer, other than a flag officer or the captain of the ship passes, unless they be called to attention or when it is necessary to clear the gangway.

Men seated in boats in which there is no officer, petty officer, or acting petty officer in charge, lying at landings, gangways, or booms, shall rise and salute all officers passing near; when an officer, petty officer or acting petty officer is in charge of a boat, he alone shall render the salute. Men seated at oars in a pulling boat shall not rise or salute.

N.R.
268
(1) (3) At landings and gangways juniors shall give way to seniors, and at all times juniors shall show deference to their seniors by abstaining from crossing the bows of their boats, crowding them, or ignoring their presence. The same rules shall apply in relations ashore, whether in vehicles or on foot.

In accompanying other officers, juniors shall walk or ride on the left of their seniors, unless there be special reason for the contrary.

Unless otherwise directed by the senior officer present, officers will enter boats, automobiles, or other vehicles in inverse order of rank and will leave them in order of rank. The seniors will be accorded the most desirable seats.

N.R.
272 (3) An officer joining a ship or station shall, in addition to reporting for duty, make an official visit to his commanding officer or commandant within 48 hours after joining.

Etiquette of the Side

N.R.
1065 So far as his authority extends, the officer of the deck shall see that the regulations concerning salutes, honors, and distinctions are carefully observed.

N.R.
1066 He shall see that all officials who come on board or leave the ship receive the side honors to which they are entitled.

He shall see that all persons coming alongside or visiting the ship are courteously treated.

Unless prevented by urgent duty, he shall be at the gangway to receive, and shall accompany to the side, all commissioned officers or distinguished visitors. When so prevented, he shall send a junior officer of the watch to represent him.

He shall require all persons over whom he has authority to report to him or his representative upon leaving the ship, stating that they have permission to do so, and also to report their return on board.

N.R.
1067

The absence from the gangway of the officer of the deck, at the time of the departure or return of any officer, is not to be construed by the latter as a sufficient reason for omitting this report.

He shall report to the executive officer the departure and return of all officers senior to that officer.

HONORS TO BE RENDERED ON THE OCCASION OF VISITS

Reception of an Official

The sequence and procedure in rendering prescribed honors when receiving an official on board shall be as follows:

(a) Where it is prescribed that the rail shall be manned, men facing outboard shall be approximately equally spaced at the rail on all weather decks, but the spacing should not be less than one arm's length. Officers, other than those attached to divisions manning the rail or otherwise specifically employed, shall be assembled on the quarter-deck. Men not otherwise occupied shall fall in at quarters.

(b) Attention shall be sounded by bugle as the official approaches the ship.

(c) The boat shall be piped as it comes alongside. Shore boats or automobiles shall not be piped alongside nor away from accommodation ladders or brows, but official so entitled shall receive other prescribed honors on coming on board or leaving the ship.

N.R.
231 (2)

WATCH OFFICER'S GUIDE

(d) When the official's head appears level with the deck, or as he approaches near the upper platform, he shall be piped over the side. From the first note of this pipe all officers on deck in view, the side boys and all men not in formation on deck shall salute, and the guard shall present arms.

(e) When the official reaches the upper platform he will salute the colors and if it is specified that a personal flag or national ensign be displayed during the visit it shall be broken at this time. The piping shall then cease and immediately thereafter the music, if required, shall sound off.

(f) If the ruffles and flourishes are followed by a march, the hand salute will terminate after the ruffles and flourishes; if followed by a national anthem, after the last note of the anthem; if followed by "To the Colors" by the bugle, after the last note of the call. In the absence of ruffles and flourishes the hand salute and present arms will terminate with the end of the pipe specified in subparagraph (d) above.

(g) Upon completion of the hand salute, the official, if his rank is such as to entitle him to a salute of eleven guns or more, shall be received by the flag, commanding, and other designated officers, and he shall be invited to inspect the guard. Junior officials shall be received by the commanding and other designated officers and a similar invitation extended.

(h) When the required music is completed the guard shall come to order arms.

(i) If a salute is required to be fired upon arrival on board it shall begin as soon as practicable after the music is completed. Officers and men shall stand at attention, facing the official, or, if he is not in view, facing the saluting battery during the salute.

Departure of an Official

The sequence and procedure in rendering prescribed honors on the departure of an official shall be as follows:

(a) The rail shall be manned, if required, as in subparagraph (a) above.

(b) Attention shall be sounded by bugle as the official arrives on the quarter-deck.

(c) Immediately after the official completes his leave-taking from the senior officer attending the side, and before the official enters the line of side boys, the guard shall present arms, those specified in subparagraph (d) above, shall salute, and the band shall sound off, giving specified ruffles and flourishes followed by march or national anthem, as required.

(d) The piping of the side shall begin as the official enters the line of side boys and shall continue until his head reaches the level of the deck, at which time the salute and present arms shall terminate. N.R.
231 (3)

(e) The official shall be piped away from the side. Shore boats and automobiles are not so piped.

(f) When a gun salute is to be fired upon departure, it will commence after the boat has cast off and hove to, on a parallel heading, sufficiently clear of the saluting battery. Officers and men shall stand at attention facing the official saluted. If a personal flag or national ensign has been flown during the visit or if a national ensign has been displayed during the gun salute it shall be hauled down at the last gun of this salute. In the presence of the President of the United States, or the president or sovereign of any other nation, no gun salute shall be fired to any authority of lesser rank of that nation.

(g) No salute shall be fired to officials of the Navy without permission of the senior officer present except it be one in honor of such senior.

Honors at Shore Station

N.R. 231 (4) The same salutes, honors, and ceremonies, insofar as may be practicable, shall be rendered in connection with official visits to naval stations as are accorded on similar visits to ships of the Navy, except when officials are entitled to a single salute with guns this salute shall be fired on arrival of the official instead of on departure.

Abridged Table of Honors

The President, Secretary of the Navy, Under Secretary of the Navy and Assistant Secretary of the Navy, and U. S. naval officers on official visits are entitled to gun salutes, ruffles and flourishes, guard, music, and side boys as follows:

Rank	Guns Arrival	Guns Departure	Ruffles and Flourishes	Guard	Music	Side Boys
President	21	21	4	Full	National	8
Sec. of Navy	19	19	4	Full	March	8
Under Sec. Navy	17	17	4	Full	March	8
Asst. Sec. Navy	17	17	4	Full	March	8
Admiral		17	4	Full	March	8
Vice Admiral		15	3	Full	March	8
Rear Admiral		13	2	Full	March	6
*Commodore		11	1	Full	March	6
Captain		—	—	Day	—	4
Commander		—	—	Day	—	4
†Lieut. Commander		—	—	Day	—	2
Lieutenant		—	—	—	—	2
Lieut. (jg)		—	—	—	—	2
Ensign		—	—	—	—	2
Commissioned Warrant		—	—	—	—	2

* Retired rank only.

† A lieutenant commander is entitled to have the guard of the day paraded in his honor if he is a unit commander, chief of staff, or commanding officer.

NOTE: The return salute for a commanding officer is 7 guns.

Piping the Side

Side boys shall be in attendance whenever the side is piped and they shall not be paraded unless the pipe is sounded. N.R. 261

Shore boats or automobiles shall not be piped alongside nor away from accommodation ladders or brows, but officials entitled shall receive other prescribed honors on coming on board or on leaving the ship.

Piping the side for officers not wearing side arms may be dispensed with on board the ship to which they are attached by order of the Commanding officer, and on board other ships in the vicinity when authorized by the senior officer present.

When Only Side Honors Are Given

If a flag officer, unit commander, commanding officer, or chief of staff comes on board in uniform but without flag or pennant flying in his boat or automobile, only side honors shall be given on arrival and departure. All persons on the quarter-deck shall stand at attention by command without bugle. Full honors shall be rendered on departure when requested. N.R. 238

When a flag officer officially leaves or returns to his flag-ship during the day he shall be given the honors prescribed in *Navy Regulations* article 238, except that the uniform shall be as he may prescribe and no salute shall be fired. He shall be attended at the gangway by the commanding officer, deck officers of the watch and designated officers of his staff. N.R. 240

Unit Commander, Chief of Staff, or Commanding Officer Visits Ship

When a unit commander or chief of staff, not a flag officer, or commanding officer of a ship visits officially another ship of the Navy, he shall be attended on his N.R. 241

WATCH OFFICER'S GUIDE

arrival and departure by the commanding officer, and if of or above the grade of lieutenant commander, the guard of the day and side boys shall be paraded in his honor. When a unit commander or chief of staff, of or above the grade of lieutenant commander, not a flag officer, leaves or returns to the flagship officially, the guard of the day and side boys shall be paraded in his honor.

Commanding Officer Leaves or Returns to Ship

N.R.
242 When a commanding officer of a ship leaves or returns to the vessel under his command he shall be attended at the side by the officer who, in his absence, succeeds to the command; and if of or above the grade of lieutenant commander the guard of the day shall be paraded in his honor if he leaves or returns officially.

The Parading of the Full Guard and Band and of the Guard of the Day

The *full guard and band* is paraded for flag officers officially coming aboard or leaving a naval ship or station.

N.R.
238 The *guard of the day* only is paraded for a captain, commander, or lieutenant commander (unit commander, chief of staff, or commanding officer) officially coming aboard or leaving a naval ship or station.

Side Honors Dispensed With

N.R.
262 All honors on the arrival or departure of any commissioned officer, except attendance at the side of the officer of the deck and such other social courtesy as may be appropriate, shall be dispensed with under the following circumstances:

- (a) When arriving or departing officers are not in uniform.
- (b) When the departure or reception takes place after sunset and before 0800, except that for foreign

- officers the side shall be piped during daylight.
- (c) During meal hours of the crew for officers of the United States Navy or Marine Corps.
 - (d) When exercising at general drills or when undergoing overhaul at navy yards, for officers of the United States Navy or Marine Corps.
 - (e) On board ships having an allowance of 180 men or less, of the seaman branch, the attendance of side boys for officers of the Navy, Army, Marine Corps, and Coast Guard of the United States shall not be required except on such occasions as advance notice of an official visit has been received.

The guard and band shall not be paraded on Sundays for ships or for officers of the United States armed services.

PASSING HONORS

Officer of the Deck to Initiate the Rendering of Honors

The officer of the deck is especially charged with giving the command "Attention" as regards salutes to ships, and to officers and officials so entitled when passing in boats. Petty officers or others shall give the command if the officer of the deck's command has not been heard by those in their vicinity, or the ship or boat has not been observed by the officer of the deck.

N.R.
260

Close Aboard

The term "close aboard" shall mean within 600 yards for passing ships and 400 yards for passing officers. For high personages and foreign ships the terms shall be interpreted liberally and in case of doubt the officer responsible for taking action shall be careful not to render less honors than due.

N.R.
246

When any of the crew are paraded in rendering honors, they shall salute only by command.

Honors for Passing Men-of-War and Boats

N.R. 253 The *guard of the day and band* is paraded for any naval officer of and above the rank of commodore who is officially embarked in a boat and is passing close aboard.

N.R. 249 The *guard of the day and band* is paraded for a man-of-war or Coast Guard vessel when passing close aboard regardless if ship is flying a personal flag or commissioned pennant.

The foreign national anthem is played when a foreign vessel is passing or being passed close aboard.

Procedure While Boats Are Passing

The procedure in rendering honors to dignitaries officially embarked in boats passing close aboard shall be as follows:

N.R. 252 (a) "Attention" shall be sounded just before the boat is abreast, or nearest to abreast, the quarter-deck.

(b) As the boat is abreast, or nearest abreast, the quarter-deck the guard shall present arms, officers, sentries, and men on watch on deck, in view of the boat, shall face the boat and salute.

(c) The music, if required, shall sound off.

(d) "Carry on" shall be sounded and the salute and the present arms shall terminate when the honors have been completed and acknowledged.

Honors between Sunset and Sunrise

N.R. 247 Exchange of honors or salutes by vessels of the United States Navy or Coast Guard, with or without personal flags flying, shall not be rendered between sunset and 0800. Honors or salutes to foreign men-of-war may be rendered between sunrise and 0800 if circumstances are such as to cause a delay to be inappropriate.

Procedure While Passing Vessels

The procedure in rendering honors prescribed for vessels passing close aboard shall be as follows:

(a) As the jack staff of one vessel passes the jack staff or flag staff of the other vessel "Attention" shall be sounded by bugle or, in the absence of a bugle, by other appropriate means. In exchanging honors with vessels of the United States Navy or Coast Guard the junior of the two vessels shall sound "Attention" first.

N.R.
248

(b) The guard shall present arms and all officers, sentries, and men on watch on deck shall face the passing ship and salute.

(c) The band shall sound off.

(d) The salute and present arms shall terminate with the completion of the anthem by both ships.

(e) "Carry on" shall be sounded when the honors have been completed and acknowledged.

Honors During Maneuvers or Evolutions

Vessels engaged in tactical evolution outside of port shall not exchange honors or salutes except when either or both vessels are on detached duty.

N.R.
250 (1)
(2) (3)

No honors other than "Attention" by bugle and salute by all officers, sentries, and men on watch on deck, facing the passing vessel, shall be rendered between vessels in port proceeding to or from an anchorage or engaged in maneuvers except when either or both vessels have been or are proceeding on detached duty.

For the purpose of rendering honors and salutes, those vessels joining or leaving such formation, maneuvers, or evolutions, which have been, or will be absent for at least six months from the vicinity of the ships with which they are joining or leaving will be considered as on detached duty.

ABSENCE INDICATORS

Daytime Absence Indicators

The following daytime (sunrise to sunset) absence indicators are prescribed:

1st REPEAT at Official or naval officer whose personal
stbd. yardarm. flag or command pennant or senior officer present (S.O.P.) pennant is flying in that ship, is absent with intention to return within 72 hours.

Cominst. 2nd REPEAT at Chief of Staff is absent with intention
1939 port yardarm. to return within 72 hours.
1827

3rd REPEAT at (a) Captain is absent with intention
port yardarm. to return within 72 hours; or
(b) (The captain being absent without intention to return within 72 hours). The executive officer is absent with intention to return within 72 hours.

SPEED beneath Official or naval officer, beneath whose
personal flag or personal flag or broad pennant
broad command SPEED is displayed, will leave the
pennant. ship officially in about five minutes.
SPEED will be hauled down at the
moment of his departure.

Flag Lights

Cominst. A ship in which an official or officer authorized to fly a
1939 personal flag or broad command pennant is regularly
1828 embarked shall display, from sunset to sunrise, when that
official or officer is aboard, two white lights 6 feet apart
in a horizontal line athwartships, about half way up the
after side of the mainmast. These lights are called "Flag
Lights." When the official or naval officer whose flag or

pennant is displayed is absent from his flagship, the flag lights shall be turned off.

NATIONAL ENSIGN, PERSONAL FLAGS AND PENNANTS, AND COMMISSION PENNANT

Dipping the National Ensign

No ship of the Navy shall dip her ensign unless in return for such compliment.

Of the colors carried by a naval force on shore only the battalion or regimental colors shall be dipped in rendering or acknowledging a salute. N.R.
287

When any vessel, registered by a nation formally recognized by the Government of the United States, salutes a ship of the Navy by dipping her national ensign it shall be returned dip for dip. Before 0800 or after sunset the colors shall be hoisted at the gaff, the dip returned, and, after a suitable interval, the colors hauled down. N.R.
288

Distinctive Mark of a Ship of the Navy

The distinctive mark of a ship of the Navy in commission, other than the national ensign, is a personal flag or pennant or the commission pennant at a masthead.

The distinctive mark shall be carried during the day and night at the after masthead, or, in mastless ships, from the loftiest and most conspicuous hoist. N.R.
292 (1)
(2) (3)

A personal flag or command pennant may be hauled down during the conduct of an engagement or at any time when the officer concerned or the senior officer present considers that it is desirable thus to render a flagship less distinguishable. When so hauled down it shall be replaced with a commission pennant.

Under no circumstances shall an action be commenced or battle fought without the display of the national ensign. N.R.
710

When the National Ensign Shall Be DisplayedN.R.
284

The national ensign shall be hoisted at the flag staff of a ship of the Navy in commission, at anchor at 0800 and kept flying until sunset. Whenever a naval vessel comes to anchor or gets under way while there is sufficient light for the ensign to be seen, the latter shall be hoisted at the gaff although earlier or later than the time specified. The ensign shall be displayed, unless there are good reasons to the contrary, when falling in with other ships of war or when near land, and especially when passing or approaching forts, lighthouses, or towns. It is customary for other ships of war to show their colors in return.

When two or more vessels are in company, in port, the senior officer present shall, at 0745, make a preparatory signal, giving the size of colors to be hoisted for the day; if such signal is made during the day, colors shall be shifted when the signal is hauled down. Jacks corresponding in size to the colors shall be flown.

The national ensign shall be displayed on shore from 0800 to sunset at every shore station under the jurisdiction of the Navy Department, at such point as the commandant thereof may direct. The national ensign shall also be displayed at the marine barracks, naval hospitals, or other command, within the limits of the station, provided that in the opinion of the commandant, the proximity of the flag poles does not cause confusion in the rendering of honors at morning and evening "colors." When there exist outlying reservations under the command of such commandant, which lie so far from the main reservation that their governmental character is not clearly indicated by the display of the ensign at such reservation, the commandant shall direct that the national ensign shall be displayed at such point on each such outlying reservation as he may deem desirable.

When a ship is at anchor the union jack shall be flown from the jack staff from 0800 to sunset.

A ship of the Navy entering port at night shall hoist her ensign at daylight for a short period, to enable the authorities of the port and ships of war present to determine her nationality. It is customary for other ships of war to show their colors in return. N.R.
290

National Ensign in Boats

The national ensign shall be displayed from boats belonging to naval ships: N.R.
285

(1) When away from the ship between 0800 and sunset in a foreign port.

(2) When the ship is dressed, or full dressed, in such boats as are water borne.

(3) In a home port when boarding a foreign vessel.

(4) In a home port when any officer or official is embarked officially; or, when any flag officer, unit commander, a commanding officer or chief of staff, in uniform, is embarked in a boat assigned for his personal use or the personal use of a junior belonging to a ship within his command.

At such other times as may be prescribed by the senior officer present.

Honors to the National Ensign at 0800

The following ceremonies shall be observed at "colors" on board ships in commission: The guard of the day and the band shall be present. At morning "colors," "Attention" shall be sounded on the bugle. This shall be followed by the playing of the National Anthem by the band, at the beginning of which the ensign shall be started up and hoisted smartly to peak or truck. All officers and men shall face the ensign and render the salute, and the guard of the day and sentries under arms shall come to the position of present arms while the National Anthem is being played. In the absence of a band, "To the Colors" will be sounded on the bugle. In the absence of a bugle "Atten- N.R.
286

tion" shall be sounded by other appropriate means and the procedure prescribed shall be followed during the raising or lowering of the ensign. Subsequent to "The Star Spangled Banner," honors to foreign ensigns shall be rendered, at morning "colors" only, by the band playing the appropriate foreign national anthem. The salute and present arms shall terminate with the sounding of "Carry On."

The same ceremonies shall be observed at sunset, the ensign being started from the peak or truck at the beginning of the National Anthem and the lowering so regulated as to be completed at the last note. In the absence of a band, "Retreat" will be sounded on the bugle.

The same ceremonies shall be observed, insofar as may be practicable, at naval stations.

Half-masting the Ensign

N.R. 289 In half-masting the ensign it shall, if not previously hoisted, be first hoisted to the truck or peak with the usual ceremonies and then lowered to half-mast. Before lowering from half-mast the ensign shall be first hoisted to the truck or peak and then lowered with the usual ceremonies.

On board ship or at naval stations, upon all occasions of hoisting, lowering, or half-masting the colors, or displaying the union jack, the motions of senior officer present in sight shall be followed except when answering dips.

Displaying a Personal Flag or Pennant

Except as prescribed below, no personal flag or pennant of any official shall be displayed at the same masthead with any national ensign. Whenever in a two-masted vessel such double display in dressing or full dressing ship, either in honor of our own or a foreign country, or during a visit aboard of any foreign president, sovereign, or member of a royal family, is required under these

regulations, the personal flag or pennant shall be displayed at the fore while the national ensign of the country or official being honored is hoisted at the main.

During the period of dressing ship or full dressing ship in a single-masted flagship, the personal flag or pennant shall be displayed at the masthead, alongside and to port of the ensign.

A personal flag or pennant at the masthead where a national flag is shown during a gun salute shall be lowered until clear of the national flag, during the salute.

During salutes to foreign countries and during salutes to, or visits of, foreign presidents, sovereigns, or members of royal families, the appropriate foreign national ensign shall be displayed at the main. For foreign officials of lesser rank the appropriate foreign national ensign shall be displayed at the fore. N.R.
293

When rendering honors requiring the use of a foreign flag, the ensign (man-of-war flag) of the foreign country is used. If there is no ensign, the national flag is used.

Boat Flags and Pennants

Any flag or other officer in command, afloat or at a naval station, shall, upon official occasions and visits, carry on a staff at the bow of the boat in which he is embarked, a flag, broad or burgee command, or commission pennant according to his rank or position. A chief of staff of the rank of lieutenant commander or above, and not a flag officer, when so embarked shall similarly display a commission pennant.

When a personal flag or pennant or the commission pennant is displayed as prescribed above, the ensign shall be flown from a staff in the stern. N.R.
297

A flag officer or an officer duly ordered to the command of a division or larger unit, or a naval station, when embarked in a ship's boat and not in uniform, may display a miniature of his personal flag or pennant from a small

staff in the vicinity of the coxswain's station. Such officer when officially embarked in an automobile may display his personal flag or pennant forward on such vehicle as may be most appropriate.

Displaying of Broad and Burgee Command Pennants

An officer not a flag officer, duly appointed to the command of a division or larger unit, whether or not in command of a ship, shall carry the appropriate command pennant at all times at the after masthead of his flagship and in the bow of a boat in which he is embarked officially.

N.R.
298 An officer, not a flag officer, exercising temporarily by reason of seniority, the command of a division or larger unit, shall carry the appropriate command pennant at the starboard after yardarm of the ship in which he is embarked while such ship is at anchor in a port of the United States, and at the after masthead while the ship is underway or in a foreign port. He shall display the command pennant from a boat in which he is embarked officially.

The broad command pennant shall be flown by an officer, not a flag officer, when in command of a force. flotilla, squadron, a wing of patrol planes, or a division of battleships, aircraft carriers or cruisers. The burgee command pennant shall be flown by an officer, not a flag officer, when in command of a division of ships other than battleships, aircraft carriers, or cruisers.

Displaying of Senior Officer Present Pennant

N.R.
294
(2) If two or more ships of the Navy are together at sea or in port with no distinctive flag or pennant flying to designate the ship of the senior officer present, then the senior officer present pennant shall be displayed at the starboard after yardarm of the senior ship. This display

may be in addition to that of a broad or burgee command pennant.

Insignia on Boats and Boat Staffs

The boat of a flag officer shall carry on each bow the stars as arranged in his flag, and, on the end of the personal flag and ensign staffs a halberd.

The boat of a unit commander shall carry on each bow the unit flag or pennant. The boat of a commanding officer or a chief of staff not a flag officer shall carry an arrow on each bow. If the unit commander, commanding officer, or chief of staff be of the grade of captain, a ball shall be carried on the end of the flag or pennant and ensign staffs; if a commander, a star; if of lower rank, a flat truck. N.R.
300

Boats assigned for the use of the staff of a commander-in-chief or junior unit commander may carry appropriate lettering on each bow for the purpose of identification.

A spread eagle shall be carried on the end of the personal flag and ensign staffs of all officials entitled to a salute of 19 or more guns; a halberd by officials entitled to a salute of 11 or more, and less than 19 guns. In the case of first secretaries of embassies or legations and consuls a ball shall be carried on the end of the staffs; for officials of lesser rank a flat truck.

No personal flag or pennant of any officer shall be half-masted when displayed either from ships or boats, except upon the death of the officer. N.R.
301

When a diplomatic official of the United States of or above the rank of chargé d'affaires pays an official visit afloat in a boat of the Navy, the union jack of a suitable size shall be carried on a staff in the bow.

When the naval governor of Guam or American Samoa is embarked in a boat, within the limits of his Government, for the purpose of paying visits of ceremony in his official capacity as governor, a union jack of suitable size N.R.
302

shall be carried on a staff in the bow of the boat.

When a consular representative of the United States pays an official visit afloat in a boat of the Navy, the consular flag shall be displayed on a staff in the bow.

Personal flags of other officials, when embarked in a ship's boat and visiting officially a ship of the Navy, or naval station, may be carried on a staff in the bow.

In each case specified in the above paragraph, the ensign shall be displayed from a staff in the stern.

ANNIVERSARIES AND SOLEMNITIES

National Holidays

N.R. 330 The 1st of January, the 22nd of February, the 30th of May, the 4th of July, the first Monday of September, the 11th of November, the 25th of December, and such other days as may be designated by the President (including the day for National Thanksgiving) shall be regarded as holidays on board ships of the Navy and at naval stations. Of these only the 22nd of February, the 4th of July, and the 30th of May shall be observed ceremoniously.

Whenever any of the above-designated dates falls on Sunday, the following Monday shall be observed as a holiday and the required ceremonies conducted.

Observance of National Anniversaries

On the 22nd of February and the 4th of July every ship of the Navy in commission, not under way, shall full dress ship at 0800 and remain so dressed until sunset; at noon saluting ships shall fire a national salute. At sea the same salute shall be fired with the ensign at the main truck. At naval stations a national salute shall be fired at noon.

N.R. 327 If, in the opinion of the senior officer present, the weather is so bad as to make "full-dressing" inadvisable,

"dressing" may be substituted, and, if necessary, these flags may be hauled down after being hoisted.

Memorial Day, May 30, shall be observed by the suspension of all unnecessary work, drill and exercises; at noon a salute of 21-minute guns shall be fired by all saluting vessels in commission and naval stations, during which the ensign shall be at half-mast. Detachments from vessels in United States ports and naval stations shall, in the discretion of the senior officer present, take part in memorial parades in the immediate vicinity, if requested by competent authority, and if it can be done without land transportation or other expense to the Government.

When the 22nd of February, 30th of May, or 4th of July occurs on Sunday, all special ceremonies shall be postponed until the following day.

Dressing and Full Dressing Ship

On the occasion of dressing ship, all cranes, booms, et cetera, shall be moved to the places where they secure; the flag and jack staffs shall be shipped, and a national ensign shall be hoisted at each masthead, except in the case of a flagship. If the masts are the same height, the ensigns shall be the same size. The largest ensign with which the ship is furnished shall be displayed from the flag staff and the jack corresponding in size shall be hoisted at the jack staff. The ship shall be dressed at 0800 and so remain until sunset. N.R.
291

When full dressing ship and the masting of the vessel will permit, in addition to the dressing of the mastheads, a rainbow of flags shall be arranged, reaching from the foot of the jack staff to the foot of the flag staff. Peculiarly masted or mastless ships shall provide to make the most artistic display, as little modified from the rainbow effect as practicable. When possible, all ships shall be full dressed alike; and to insure uniformity, the flags shall

be stopped in the order given in "Flags of the United States and Other Countries" (H. O. No. 89).

If the dressing or full dressing is complimentary to some other nation, then the ensign of that nation shall be hoisted at the main.

Ships shall not be dressed or full dressed while underway.

Participation in Celebrations of Foreign National Anniversaries

**N.R.
329**

Upon the occasion of the celebration of their national anniversaries by the authorities of ships of war of a friendly foreign nation, in foreign or domestic ports, ships of the Navy shall, on official invitation being received by the senior officer, full dress or dress ship, with the foreign national ensign at the main, and fire such salutes as are fired by the foreign authorities or ships, not, however, exceeding 21 guns, unless the senior officer present deems it necessary to fire a larger number in order to participate properly in the celebration or solemnity, to show proper courtesy to the nation complimented, or to avoid giving offense. Under similar circumstances, ships of the Navy shall participate in the observance of national solemnities of foreign nations. Under all such occasions efforts shall be made to accord, so far as possible, with the foreign authorities, in the time and manner of conducting the ceremonies.

GUN SALUTES

Saluting Ships

**N.R.
303**

Ships mounting a saluting battery or allowed saluting ammunition in accordance with instructions of the Navy Department, shall be considered saluting ships. No other vessels of the Navy shall fire gun salutes except in cases where, from any special circumstances, the failure to

salute cannot be explained without giving offense to a foreign power or official, salute shall be fired by any ship which can do so with safety, whether included in the category above or not.

The National Salute

A national salute shall consist of 21 guns.

N.R.
305

The interval between guns in salute shall normally be 5 seconds.

No salute shall be fired in honor of any nation or of any official of any nation not formally recognized by the Government of the United States.

Salutes in Presence of a Senior

In the presence of the President of the United States, or the president or sovereign of any other nation, no gun salute shall be fired to any other authority of lesser rank of that nation by vessels of the Navy.

N.R.
307

No salute shall be fired to officials of the Navy without permission of the senior officer present, except it be one in honor of such senior.

Return Salutes

When a ship or naval station of the United States salutes the flag of the Secretary of the Navy, Under Secretary of the Navy, or the Assistant Secretary of the Navy, or the flag of a flag officer, the return salute shall be as prescribed by *Navy Regulations*, article 238. To an officer flying a broad or burgee command pennant and to any commanding officer of the United States Navy or Coast Guard, the return salute shall be seven guns.

N.R.
323

No salutes to other civil officials of the United States are to be returned.

Personal salutes fired to flag officers, either of the United States or of any foreign state, on the occasion of their paying official visits are not to be returned.

When Salutes May Be FiredN.R.
306

As a general rule salutes shall be fired between 0800 and sunset. Unless required by international courtesy salutes shall not be fired between sunrise and 0800 or on Sundays. No salute shall be fired between sunset and sunrise. The national ensign shall always be displayed during a salute.

In the case of a salute at 0800, the first gun shall be fired immediately following the last note of the last national anthem.

Before firing a personal salute to a senior, notification shall, if practicable, be given the senior, stating approximately the time that the salute will be fired. This is not to be construed as a request to fire the required salute but is notification for the convenience of the senior. This same notification may be given to foreign officials or dignitaries.

International Agreement in Regard to Returning SalutesN.R.
322

The following arrangements entered into by the maritime powers will be observed in regard to returning salutes.

(1) Salutes to be returned gun for gun:

- (a) To the nation upon arrival in a foreign port.
- (b) To foreign flag officers when met at sea or in port.

(2) Salutes not to be returned:

(a) To a president of a republic, sovereign or member of royal families, whether on arrival at or departure from a port or upon visiting ships of war.

(b) To diplomatic, naval, military, or consular officials, or to governors, or officers administering a government, whether on arrival at or departure from a port, or upon visiting ships of war.

(c) To foreigners of high distinction on visiting ships of war.

(d) Upon occasions of national festivals or anniversaries.

Procedure During the Firing of a Salute

Whenever a salute is fired, following the motions of the flagship or ship of the senior officer present, each ship shall begin its salute with the first gun from the flag or senior ship. N.R.
308

During the firing of a salute all officers and men on deck shall stand at attention and face the ship or person saluted if in view; if not, then face the saluting battery.

On the occasion of saluting a civil official or a flag officer on his departure from a ship of the Navy or a naval station, his flag shall be hauled down on the last gun of the salute.

United States Forts and Cities

Forts and cities of the United States shall not be saluted by ships of the Navy. N.R.
311

Salutes shall not be fired in ports or parts of ports where they are forbidden by local regulations or proper authorities.

Boats, While Salutes Are Fired

Any pulling boats having an official on board shall come to "Oars" and power boats shall slow their engines, disengaging their clutches, on a parallel heading, during the firing of a salute in honor of that official. During the salute only the official being honored shall rise, weather permitting, and face the vessel saluting; at the end of the salute he shall acknowledge it. N.R.
312

When Officers Are Not Saluted with Guns

No officer of the uniformed services of the United States except flag officers and general officers shall be saluted with guns except in return for such honors. No N.R.
315

officer in civilian clothing shall be saluted with guns nor have a guard or side boys paraded in his honor.

When Salutes Are Due Officials

N.R. 316 Officials whose rank entitles them to nineteen or more guns shall receive full honors, including the salute with guns, on the occasion of every visit.

Other officials of the United States or of foreign nationality, whether naval, military, or civil, shall not be saluted by the same ship or by a naval station, more often than once in 12 months, unless such official has been advanced in rank, makes an official visit or inspection, or be on special duty in which international or other exceptional courtesies may be involved, when the commanding officer shall, in the absence of instructions, exercise his discretion.

Salutes to Foreign Sovereign, Member of Royal Family, or Flag Officers

N.R. 317 Whenever a ship of the Navy falls in with a friendly foreign ship of war flying the standard or flag of a president of a republic, sovereign, or member of a royal family, or passes near such standard or flag, if flying elsewhere than from a ship of war, a national salute shall be fired and the ensign of the nation of the president, sovereign, or member of a royal family displayed at the main during the salute.

N.R. 318 When a ship of the Navy falls in at sea with a friendly foreign ship of war flying the flag of a flag officer, she shall exchange salutes with such ship of war in the same manner as when meeting similar ships of the United States, except that the salute will be returned gun for gun, and the appropriate foreign national ensign shall be displayed at the fore during such salute. Should flag officers be of the same grade and their relative seniority unknown or in doubt, they should mutually salute without delay.

Salutes to Foreign Ports

When a ship of the Navy enters a port of any foreign nation, the government of which is formally recognized by the government of the United States, where there is a fort or battery displaying the national flag, or where a commissioned ship of war of that nation is lying, she shall fire a salute of 21 guns to that nation unless:

N.R.
319 (1)
(2) (3)

(a) Her commanding officer has reason to believe that the salute cannot be returned, in which case he shall immediately take steps to ascertain the local regulations or customs.

(b) The ship is returning from a temporary absence from port, when, by agreement with local authorities, the salute may be omitted.

(c) The ship is passing through territorial waters with no intention of anchoring or mooring in them, unless unusual circumstances make it desirable that this salute be fired.

In case two or more ships enter in company, only the senior shall salute.

When a ship of the Navy enters such port and finds displayed therein the flag of the president or the standard of the sovereign or a member of the royal family of that foreign country, a salute of 21 guns shall be fired to the president's flag or to the royal standard, subsequent to the salute to the port. In the absence of a saluting battery or ship of war capable of returning the salute to the port this salute will be omitted. In that event the salute to the president's flag or to the royal standard will be the only salute fired since it need not be returned. International courtesy will in certain countries require a 21-gun salute upon the arrival or the departure of the president, sovereign, or member of the royal family of that country, in the port. In all such cases the commanding officer shall conform to the national custom when requested by the proper local authorities.

Salutes in Foreign PortsN.R.
320

When a ship of the Navy enters a port in which there is present no senior officer of the United States naval service and finds displayed therein the flags of foreign flag officers of one or more nations, or if in port and not in the presence of a senior officer of the United States naval service, upon the arrival of foreign flag officers, salutes shall be exchanged with, or fired to, the senior flag officer of each nation, and the appropriate foreign ensign shall be displayed at the fore during each salute. Seniors shall be saluted in the order of their rank. Priority shall be given, if of the same rank, first to the nationality of the port, and secondly, to the length of service of the flag officers in their respective ranks. As between flag officers of the same rank, the last comer will salute first. If not fired on entering port, these salutes shall be fired as soon as possible after the usual boarding visits have been made. If a ship of the Navy enters such foreign port and finds a senior officer of the United States naval service present, a salute to such senior, when required or authorized, will be the only salute fired by the entering ship. Should the senior United States naval officer depart, the remaining senior United States naval officer will salute and visit only such foreign flag officers as are specified in this paragraph and in article 278 *Navy Regulations*.

The salutes prescribed in the foregoing paragraph shall be exchanged in the event the senior United States or foreign officer hoists the flag of a new command, or of an increased rank.

Should the continued presence in the same port of naval forces of several nations render advisable a modification of the regulations regarding salutes, honors, and visits of ceremony, the senior United States naval officer present is authorized to make such modifications as may be agreed upon by the senior officers present of the nations involved.

If on entering a foreign port there be displayed the

flags of naval officials of that nation, commanding afloat and commanding ashore, both within saluting distance, only one of these officials will be saluted, namely, the senior officer present, either afloat or ashore.

Display of Foreign National Ensign During Salute to Foreign Nation

When firing a national salute upon entering a foreign port, or when returning the same from a ship of war of a foreign nation, the ensign of the foreign nation shall be displayed at the main. N.R.
325
(1)

INTERCHANGE OF OFFICIAL VISITS AFLOAT

Visits between Senior Officers

The following rules, in which the maritime powers generally have concurred, shall be observed by all officers of the Navy in regard to the interchange of official visits with officers of friendly foreign ships of war in all ports. Their observance by foreign officers may be expected as follows: N.R.
278

(a) The senior officer in port, whatever may be his rank, shall, upon the arrival of a foreign ship of war, send an officer to make an official visit to such ship and to offer the customary courtesies. In case two or more ships of the same nation arrive in company, then the visit shall be made to the senior ship only. Flagships shall be boarded by a line officer on the staff of the senior flag officer present if practicable.

(b) When such a visit is made to a ship of the Navy, an officer shall be sent to return it at once.

(c) Within 24 hours of arrival, the flag or other officer in chief command of the arriving ship or ships shall officially visit the flag or other officer in chief command of the foreign ship or ships present in port, if the latter be his equal or superior in rank. Such a visit made to a ship

WATCH OFFICER'S GUIDE

of the Navy shall be returned within 24 hours.

(d) In the case of officers of different ranks the junior shall pay the first official visit, the same limits as to time being observed.

(e) All flag officers return official visits of officers of the grade of captain and above. They may send their chief of staff to return the official visits of commanders or other junior commanding officers.

(f) Captains and commanding officers of junior ranks shall return all official visits made to them by commanding officers, whatever their rank.

(g) In the case of two or more ships arriving in port or lying in port when another ship arrives, and after the interchange of visits between the senior officers shall have taken place, the captains or other officers in command of the several ships of war arriving shall visit the flag officer, the captains, and other officers in command of the ships of war in port, who will return these visits with the exceptions mentioned in subparagraph (e) above.

Visits of Wardroom Officers

N.R. 279 Wardroom officers of a ship of the Navy arriving in port, may, after the interchange of the usual official visits by their own and other commanding officers, officially visit commanding and wardroom officers, of foreign ships of war in port when such visits, in the opinion of the senior United States naval officer present, are usual or desirable, and will probably be returned. The officers to make these visits shall be designated by the commanding officer. The order of sequence of such visits shall be that already established by earlier exchange of official visits between the flag or commanding officers.

Boarding Calls

N.R. 283 The senior officer present shall send an officer to board incoming foreign men-of-war. Flagships shall be boarded

by a line officer on the staff of the senior flag officer present if practicable.

When he considers it appropriate, the senior officer present shall send an officer to board merchant vessels or yachts flying United States colors found in or arriving at foreign ports, also all vessels which are probably carrying mail for the fleet.

The following summary of information in regard to merchant ships or yachts shall be obtained by boarding officers, when directed by the senior officer present, and boarding books shall conform thereto:

- (a) Name, nationality, and kind of vessel.
- (b) If a yacht, name of owner and whether or not he is on board. If not a yacht, the name of the master, and the number of the crew.
- (c) Tonnage and cargo.
- (d) Place from, time out, and kind of passage.
- (e) Probable date of departure.
- (f) Any casualties, extraordinary events on the passage, general route taken; and ships, fog, ice, etc., encountered.
- (g) General remarks.

In case of a man-of-war omit (c) and substitute in (b) name and rank of the commanding officer; and, if a flag-ship, also name and rank of the flag officer. In case of a merchant vessel, the fact of her carrying mail, with the destination of such mail, shall be included under general remarks.

Immediately after boarding a vessel the boarding officer shall report on board the flagship of the commander-in-chief or the ship of the senior officer present, and there enter in the boarding book the date and a full record of the visit over his signature and rank.

Chapter XXI

DIRECT READING SIGNALS

While it is not expected that all watch officers be qualified signalmen, there are certain minimum requirements for watch officers. Any additional facility and knowledge in regard to signals is of great advantage. The most expert signalmen occasionally make mistakes and an alert watch officer, thoroughly familiar with tactical signals, has often saved a serious situation.

He should know what the signal books are and be certain they are always at hand when needed. They are:

General Signal Book.

Auxiliary Signal Book (when required).

Signal Vocabulary.

Communication Instructions.

Visual Call Sign Book.

International Code of Signals.

Recognition signals, signal ciphers, and other special systems are required at times, and he is responsible for their being at hand, and properly employed.

Officers must know:

(1) All signal flags and pennants and be able to translate from the signal books any signals received.

(2) The uses of the five governing flags, "P-I-A-N-O."

(3) The special flags for guide, breakdown, man overboard, dangerous operations, quarantine, etc.

(4) The calls of his own ship and of all units which include his ship.

(5) Direct reading system of tactical signals, so he may translate its signals without reference to signal books.

GOVERNING FLAGS

AFIRM (over signal)

Action completed; or condition described exists.

AFIRM (under signal)

Signal is in the process of being carried out.

INT (over signal)

This signal is in the interrogatory form.

INT (under a signal)

Request permission to.

NEGAT (over signal)

Annuls or gives a negative sense to the signal; do not;
or cease.

OPTION (over signal)

Carry out signal IF you desire.

OPTION (under signal)

Carry out signal WHEN you desire.

PREP (over signal)

Prepare for; prepare to.

PREP (under signal)

Present intention of originator are as indicated.

SPECIAL PENNANT SIGNALS

This system includes three groups of pennants and flags which are combined under the system herein summarized.

Group I.—*Special pennants* which indicate the kind of maneuver.

SPEED)—Concerns speed.

CORPEN }
TURN } —Concern courses.

FORM }
POSIT } —Concern bearings.

Group II.—*Numeral flags* which indicate numeral values 0 to 9, plus decimal or half pennant. (ANS)

Group III.—*Unit flags* which indicate the unit concerned—

FLOT
SQUAD
DIV
SECT

SIGNALS CONCERNING SPEED

The following SPEED signals with numeral flag(s) are classed as direct reading signals:

SPEED 0—Stop.

SPEED 1—Steam at *one*-third speed.

SPEED 2—Steam at *two*-thirds speed.

SPEED 3—Steam at *standard* speed.

SPEED 4—Steam at *full* speed.

SPEED 5—Steam at *flank* speed.

SPEED (two numerals)—Steam at speed in knots as indicated.

(Two numerals) SPEED—Standard speed in knots as indicated.

SPEED BAKER—Back.

INT SPEED—What is your speed?

SIGNALS CONCERNING COURSE

CORPEN and TURN signals concern *course*. These signals are constructed by combining the pennant with the numeral flags in accordance with two basic rules:

(1) Three numerals refer to true courses. One or two numerals refer to changes of course in "tens" of degrees (ANS represents 5 degrees).

(2) When pennant is *above* numeral(s), new course is to *right* of present course. When pennant is *below* numeral(s), new course is to *left* of present course.

CORPEN signals direct that the changes of course be

made by ships turning in succession (column movement).

Examples:

CORPEN 280—Column right to true course 280 degrees.

008 CORPEN—Column left to true course 008 degrees.

10 CORPEN—Column left 100 degrees.

CORPEN 4 ANS.—Column right 45 degrees.

INT CORPEN—What is your course?

Combination with unit flags.—

(1) If unit flag is above CORPEN, *each* unit executes the change of course as a separate unit.

(2) If unit flag is below CORPEN, *each* unit executes the change of course as a separate unit, but as a ripple movement from the rear.

TURN signals direct that the change of course be made by ships turning together (ships right or left).

Examples:

TURN 069—Ships right to true course 069.

350 TURN—Ships left to true course 350.

TURN ANS—Ships right 5 degrees.

3 TURN—Ships left 30 degrees.

Combinations with unit flags.—

(1) If unit flag is above TURN, each flotilla (squadron, division, or section) executes the turn signal as a separate unit in succession from ahead, all units turning in the same water.

(2) If unit flag is below TURN, each flotilla (squadron, division, or section) executes the turn signal in succession from the rear.

SIGNALS CONCERNING BEARINGS

FORM and POSIT signals concern *bearing*. These signals are constructed by combining the pennants with numeral flags in accordance with two basic rules:

(1) *Three numerals refer to true bearing. One or*

two numeral(s) refer to relative bearings in "tens" of degrees, counting from ahead. (ANS represents 5 degrees.)

(2) For *true* bearings FORM is always *above* the three numerals. (Note—This is different from course signals.) For relative bearings, when pennant is *above* the one or two numerals, the bearing is to the *right* of guide; when pennant is *below* the one or two numerals, bearing is to *left* of guide.

FORM signals direct that ships (or other units) form in line of bearing as indicated from this (or designated) ship.

Examples:

FORM 150—Ships form on line of bearing 150 degrees true from this ship.

FORM 9—Ships form in line of bearing 90 degrees relative, to right of this ship counting from ahead.

4 ANS FORM—Ships form on line of bearing 45 degrees relative, to left of this ship counting from ahead.

INT FORM—What is your formation?

Combinations with unit flags.—

(1) If unit flag is above FORM, ships of each unit are to form on bearing indicated from their *unit* guide.

(2) If unit flag is below FORM, the units are to form with their guides bearing as indicated from this (or designated) ship—normally from the formation guide.

POSIT signals direct the ship or unit addressed to take position so as to bear as indicated from this (or designated) ship.

Examples:

POSIT 012—Take position on true bearing 012 degrees from this ship.

12 POSIT—Take position on relative bearing from this ship 120 degrees to the left, counting from ahead.

POSIT 5—Take position on relative bearing from this ship 50 degrees to the right, counting from ahead.

POSIT—Take proper (or assigned) position.

INT POSIT—What is your position?

AFIRM POSIT—I am in position.

POSIT signals are not combined with unit flags.

EMERGENCY SIGNALS

EMERG signals call attention to the danger or emergency as indicated from this or designated ship. There are other signals besides the following. These are to be found in the General Signal Book.

Examples:

EMERG 245—Attention called to danger or emergency bearing 245 degrees true from this ship.

EMERG—Execute all signals flying under a *SIMILAR* call when they are understood. (**EMERG** without a call executes signals without a call.)

EMERG MIKE—Mine sighted to starboard.

MIKE EMERG—Mine sighted to port.

EMERG SAIL (1, 2, or 3)—Submarine sighted to starboard (in zone 1, 2, or 3).

SAIL (1, 2, or 3) EMERG—Submarine sighted to port (in zone 1, 2, or 3).

EMERG TARE—Torpedo sighted approaching you from starboard.

TARE EMERG—Torpedo sighted approaching you from port.

Chapter XXII

WEATHER SIGNALS

The officer of the deck should know the latest weather information. In naval vessels weather reports are generally received by radio. However, it is important to note all visual weather signals, particularly as they concern local conditions, operations of boats, etc. In general, the location of visual weather signal stations is given in the sailing directions. The system of signals varies with different countries. When in doubt, the system may be looked up in the sailing directions or in the pilot chart. The systems most encountered by our Navy are given in condensed form in the following pages.

United States Storm Warning Signals

Shown at Weather Bureau stations on the coast of United States and at about thirty-five stations in the West Indies.

DAY

NIGHT



A small-craft warning: a red pennant indicates that moderately strong winds that will interfere with the safe operation of small craft are expected. (Note.—No night display of small craft warnings is made.)

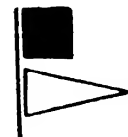
None



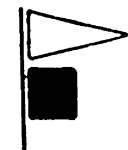
The northeast storm warning: A red pennant above a square red flag with black center indicates approach of a storm of marked violence, with winds beginning from N.E.



The southeast storm warning: A red pennant below a square red flag with black center indicates the approach of a storm of marked violence with winds beginning from the S.E.



The southwest storm warning: A white pennant below a square red flag with black center indicates the approach of a storm of marked violence with winds beginning from the S.W.



The northwest storm warning: A white pennant above a square red flag with black center indicates the approach of a storm of marked violence with winds beginning from the N.W.



Hurricane or whole gale wind: Two square flags, red with black centers, one above the other, indicate the approach of a tropical hurricane, or of one of the extremely severe or dangerous storms which occasionally move across the Great Lakes and northern Atlantic Coast.



WATCH OFFICER'S GUIDE

Canada Storm Warning Signals

DAY



No. 1

Hoisted to indicate the probability of a moderate gale at first from an easterly direction.

NIGHT



No. 2

Hoisted to indicate the probability of a moderate gale at first from a westerly direction.



No. 3

Hoisted to indicate the probability of a heavy gale at first from an easterly direction.



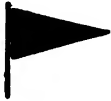
No. 4

Hoisted to indicate probability of a heavy gale at first from a westerly direction.



Mexico Storm Warning and Weather Signals

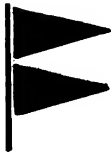
General.—Signals are hoisted on red and white flag staffs at principal Mexican ports.



Black pennant indicates:
For Gulf ports: Cyclone in Gulf of Mexico.
For Pacific ports: Cyclone close by.



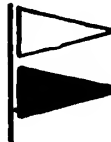
Red pennant indicates:
For Gulf ports: Cyclone in Caribbean Sea.
For Pacific ports: Distant cyclone.



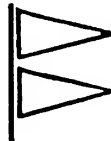
Black pennant over red pennant:
 Cyclone at the port or will pass close by on the day signal is exhibited.



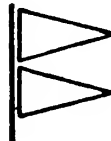
Yellow pennant over red pennant indicates:
 Bad weather south of the port.



Yellow pennant over blue pennant indicates:
 Bad weather north of port.



Yellow over white pennant indicates:
 Bad weather east of the port.



Two yellow pennants indicate:
 Bad weather west of port.



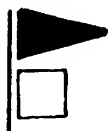
Two blue pennants indicate:
Gulf ports only: Beginning of northerly gale from Matamoras.

WATCH OFFICER'S GUIDE

Local.—



Square blue flag:
Northerly gale expected the day following (in Gulf of Mexico ports only).



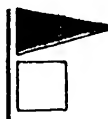
Red pennant over square yellow flag:
Gale or hurricane from the W.



Red pennant over square blue flag:
Gale or hurricane from the N.



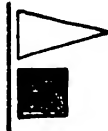
Red pennant over square red flag:
Gale or hurricane from the S.



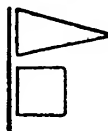
Red pennant over square white flag:
Gale or hurricane from the E.



Yellow pennant over square blue flag:
Indicates moderate or strong northerly winds.



Yellow pennant over square red flag:
Moderate or strong southerly winds.



Yellow pennant over square white flag:
Moderate or strong easterly winds.



Yellow pennant over square yellow flag:
Moderate or strong westerly winds.

NOTE—A white pennant indicates light to moderate winds.



By night—two red lights, vertical, indicate a dangerous storm.

Chapter XXIII

INTERNATIONAL SIGNALS

The 1931 *International Code of Signals* went into effect January 1, 1934. It is published in English, French, German, Italian, Japanese, Spanish, and Norwegian.

The American edition is published by the Hydrographic Office of the Navy, in two volumes. Volume I (H.O. No. 87) is for visual and sound signaling; Volume II (H.O. No. 88) is for radio. Volume I should be on the bridge and immediately available at all times. It will not be wanted frequently, but it may be wanted immediately.

There are four methods of signaling with this code:

- (1) Flag signaling with the alphabet flags, numeral pennants, substitutes, and answering pennant.
- (2) Flashing light signaling with International Morse.
- (3) Sound signaling with International Morse.
- (4) Semaphore, similar to naval semaphore.

The "distant signals" of the former code have been abolished.

Generally speaking, you will be able to communicate with the larger type of vessels by any of the above methods, but for smaller vessels it will probably be necessary to use flag hoists.

The *International Code of Signals* employs twenty-six alphabet flags, ten numeral pennants, three repeaters, and a "code and answering" pennant.

The alphabet flags, numeral pennants, and repeaters are identical with those of the Naval System. The code and answering pennants have five equal vertical stripes, three red and two white. It is included in the flag allowance of all naval vessels.

All of the above flags and pennants are given in colors in the *International Code of Signals*, (Volume I), in all naval signal books, and in the *Bluejacket's Manual* and *Boat Book*.

DISTRESS SIGNALS

INTERNATIONAL WATERS

When a vessel is in distress and requires assistance from other vessels or from the shore, the following shall be the signals to be used or displayed by her, either together or separately, viz.:

In the daytime.—

1. A gun or other explosive signal fired at intervals of about a minute.
2. The International Code signal of distress.
3. The distance signal, consisting of a square flag, having either above or below it a ball or anything resembling a ball.
4. A continuous sounding with any fog-signal apparatus.
5. The international distress signal made by radiotelegraphy or radiotelephony, or by any other distance signaling method.

At night.—

1. A gun or other explosive signal fired at intervals of about a minute.
2. Flames on the vessel (as from a burning tar barrel, oil barrel, and so forth.)
3. Rockets or shells, throwing stars of any color or description, fired one at a time, at short intervals.
4. A continuous sounding with any fog-signal apparatus.
5. The international distress signal made by radio-

telegraphy or radiotelephony, or by any other distance signaling method.

The use of any of the above signals, except for the purpose of indicating that a vessel is in distress and the use of any signals which may be confused with any of the above signals, is prohibited.

INLAND WATERS

In the daytime.—

A continuous sounding with any fog-signal apparatus, or firing a gun.

At night.—

1. Flames on the vessel, as from a burning tar barrel, oil barrel, and so forth.

2. A continuous sounding with any fog-signal apparatus, or firing a gun.

PILOT SIGNALS

The following signals, when used or displayed together or separately, shall be deemed to be signals for a pilot:

By day.—

(1) The International Code signal G, signifying "I require a pilot."

(2) The International Code signal P.T., signifying "I require a pilot."

(3) The pilot jack hoisted at the fore.

At night.—

(1) The pyrotechnic light, commonly known as a blue light, every 15 minutes.

(2) A bright white light flashed or shown at short or frequent intervals just above the bulwarks for about a minute at a time.

(3) The International Code signal P.T. by flashing light.

QUARANTINE SIGNALS

The following signals are to be shown by vessels requiring or required to show their state of health:

By day.—

Q flag, signifying "My ship is 'healthy,' and I request free pratique."

Q flag over first substitute (QQ), signifying "My ship is 'suspect,' i.e., I have had cases of infectious diseases more than five days ago, or there has been unusual mortality among the rats on board my ship."

Q flag over L flag (QL), signifying "My ship is 'infected,' i.e., I have had cases of infectious diseases less than five days ago."

By night.—

Red light over a white light, signifying "I have not received free pratique."

(Only to be exhibited within the precincts of a port. The lights should not be more than 6 feet apart.)

SINGLE-LETTER SIGNALS

Only those marked with an asterisk should be used by flashing.

- A. I am undergoing a speed trial.
- B. I am taking in or discharging explosives.
- C. Yes (Affirmative).
- D. Keep clear of me. I am maneuvering with difficulty.
- E. I am altering my course to starboard.
- *F. I am disabled. Communicate with me.
- G. I require a pilot.
- H. I have a pilot on board.
- I. I am altering my course to port.
- J. I am going to send a message by semaphore.

- *K. You should stop your vessel instantly.
- *L. You should stop. I have something important to communicate.
- M. I have a doctor on board.
- N. No (Negative).
- *O. Man overboard.
- *P. *In harbor* (Blue Peter).—All persons are to repair on board as the vessel is about to proceed to sea. (NOTE.—To be hoisted at the foremast head.)
At sea—Your lights are out, or burning badly.
- Q. My vessel is healthy and I request free pratique.
- *R. The way is off my ship; you may feel your way past me.
- S. My engines are going full speed astern.
- T. Do not pass ahead of me.
- *U. You are standing into danger.
- *V. I require assistance.
- *W. I require medical assistance.
- X. Stop carrying out your intentions and watch for my signals.
- Y. I am carrying mails.
- *Z. To be used to address or call shore stations.

TOWING SIGNALS

There is a special list of one-letter "towing signals" on page 341 of the Code.

TWO-LETTER SIGNALS

Generally speaking two-letter international code signals are important signals, many of them indicating various degrees of distress or warning. They should be read, translated, and acted upon with dispatch.

COMMUNICATION WITH AMERICAN MERCHANT VESSELS

Take every practical opportunity to communicate with

WATCH OFFICER'S GUIDE

American vessels. It maintains their interest and develops their proficiency in communications.

COAST GUARD STATIONS

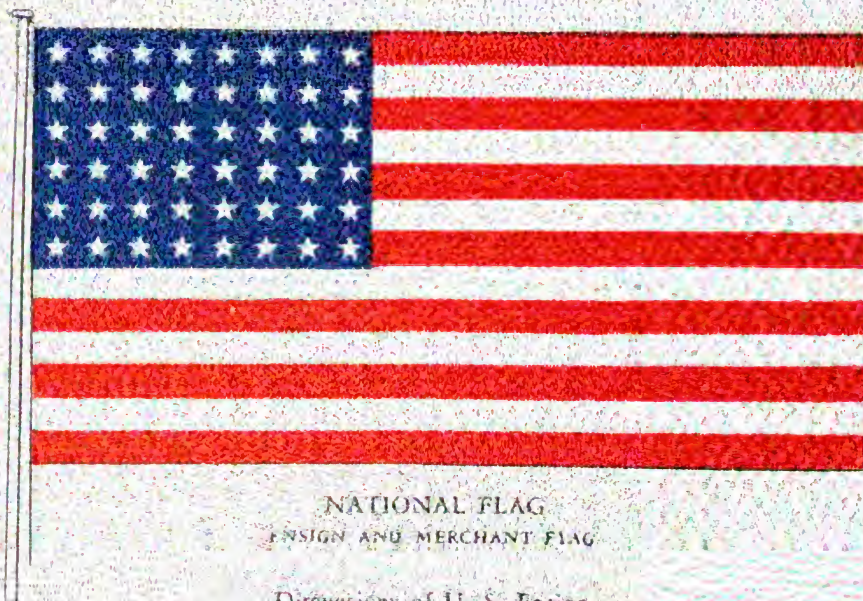
All United States Coast Guard stations are equipped for communication by International Code.

*Chapter XXIV***FLAGS AND INSIGNIA**

	PLATE
United States	
National colors worn by U. S. vessels.....	I
President and cabinet	II
Navy	III-IV
Marine Corps	V
Army	VI
Treasury	VII
Commerce	VIII
Special	IX
Argentina	X
Brazil	XI
Chile	XII
China	XIII
Denmark	XIV
England	XV
France	XVI
Germany	XVII
Greece	XVIII
Italy	XIX
Japan	XX
Netherlands	XXI
Norway	XXII
Peru	XXIII
Portugal	XXIV
Spain	XXV
Sweden	XXVI
Turkey	XXVII
Other Countries	XXVIII-XXXIII
Aircraft Wing Markings	XXXIV-XXXVIII

PLATE I

NATIONAL COLORS WORN BY UNITED STATES VESSELS



NATIONAL FLAG
ENSIGN AND MERCHANT FLAG

Dimensions of U. S. Ensign	
Hoist (width) of flag	1.0
Fly (length) of flag	1.9
Hoist (width) of Union	$1/13$
Fly (length) of Union	.76
Width of each Stripe	$1/13$



COMMISSION PENNANT



UNION JACK

PLATE II

SPECIAL UNITED STATES FLAGS
PRESIDENT AND CABINET
OFFICERS



PRESIDENT



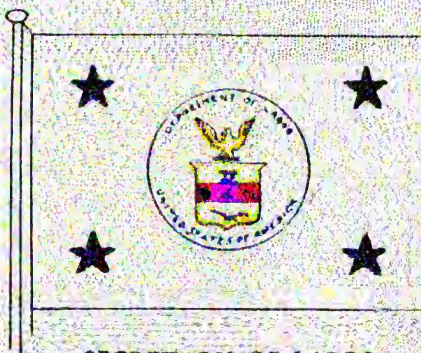
SECRETARY OF STATE



ATTORNEY GENERAL



POSTMASTER GENERAL



SECRETARY OF LABOR



SECRETARY OF INTERIOR

SECRETARY OF NAVY—SEE PLATE III

SECRETARY OF WAR—SEE PLATE VI

SECRETARY OF TREASURY—SEE PLATE VII

SECRETARY OF COMMERCE—SEE PLATE VIII

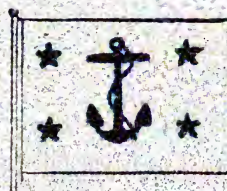
WATCH OFFICER'S GUIDE

PLATE III

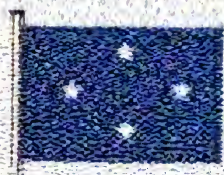
NAVAL FLAGS



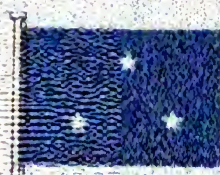
SECRETARY OF NAVY
UNDERSecretary OF NAVY,
RED FIELD



ASSISTANT SECRETARY OF
THE NAVY
ASSISTANT SECRETARY FOR AVIA
TION: WHITE FIELD WITH RED
ANCHOR AND STARS



ADMIRAL



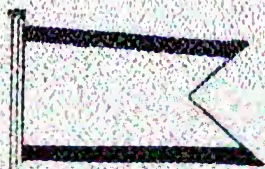
VICE ADMIRAL



REAR ADMIRAL



COMMODORE



BROAD COMMAND
PENNANT



BURGEE COMMAND
PENNANT



SENIOR OFFICER
PRESENT

PLATE IV

NAVY FLAGS (CONTINUED)



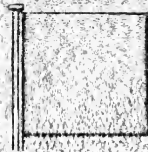
NAVAL DISTRICT
FORCE COMMANDER



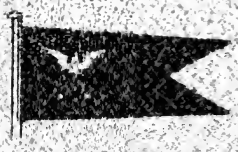
NAVAL DISTRICT
SECTION COMMANDER



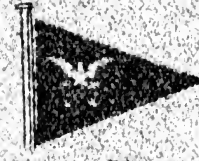
NAVAL DISTRICT
DIVISION COMMANDER



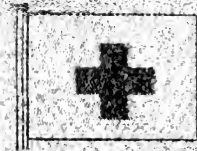
QUARANTINE
(INTERNATIONAL Q)



NAVAL RESERVE
MERCHANT MARINE FLAG



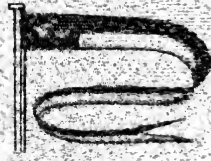
NAVAL RESERVE
YACHT PENNANT



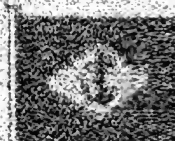
RED CROSS



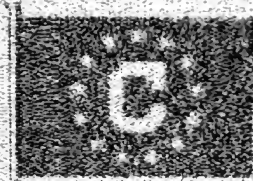
CHURCH



NAVAL MILITIA
COMMISSION PENNANT



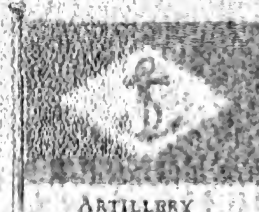
NAVAL MILITIA
DISTINGUISHING



CONSULAR FLAG



INFANTRY

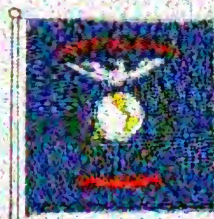


ARTILLERY

WATCH OFFICER'S GUIDE

PLATE V

MARINE CORPS



STANDARD



REGIMENTAL FLAG

MAJOR GENERAL



BOAT FLAG



POST FLAG

BRIGADIER GENERAL



BOAT FLAG



POST FLAG



GUION

PLATE VI

U. S. ARMY FLAGS



SECRETARY OF WAR



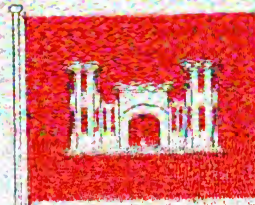
THE ASST. SECT'Y
OF WAR



MAJOR GENERAL
OF THE LINE



BRIGADIER GENERAL OF
THE LINE



ENGINEER CORPS



TRANSPORT



HARBOR DEFENSE
COMMANDER



MINE PLANTER

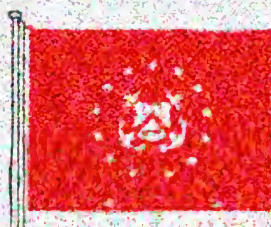
WATCH OFFICER'S GUIDE

PLATE VII

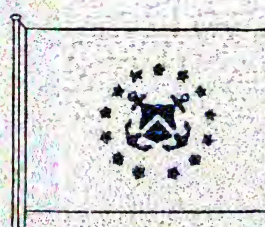
TREASURY DEPARTMENT



SECRETARY OF TREASURY

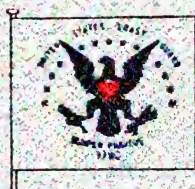


UNDER SECRETARY OF
THE TREASURY



ASSISTANT SECRETARY
OF THE TREASURY

COAST GUARD



STANDARD



COMMANDANT



BROAD COMMAND



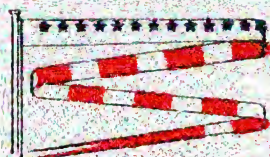
BURGEER COMMAND



COMMANDER ORGANIZED
DIVISION OF VESSELS



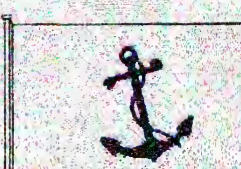
ENSIGN (FLOWN
AT FORE)



PENNANT



SENIOR OFFICER PRESENT



ANCHORAGE

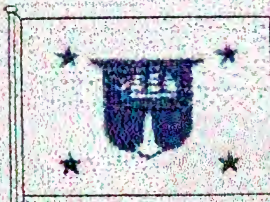
Note: Coast Guard uses ensign and jack in the same way as the Navy.

PLATE VIII

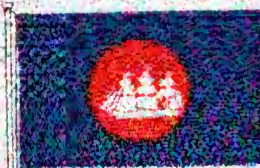
DEPARTMENT OF COMMERCE



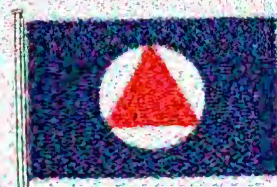
SECRETARY OF COMMERCE



ASSISTANT SECRETARY
OF COMMERCE



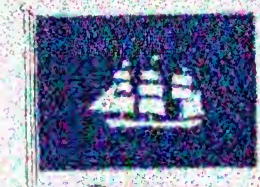
BUREAU MARINE INSPECTION
AND NAVIGATION



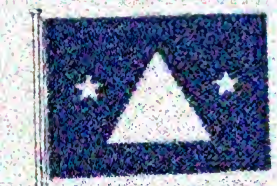
COAST AND GEODETIC
SURVEY



BUREAU OF FISHERIES



DIRECTOR OF
BUREAU OF MARINE
INSPECTION AND
NAVIGATION



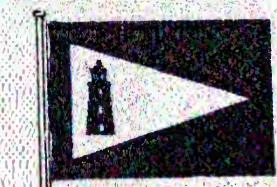
DIRECTOR
COAST AND GEODETIC
SURVEY



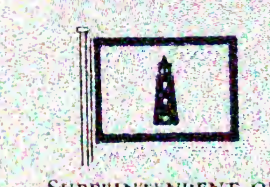
COMMISSIONER OF
FISHERIES



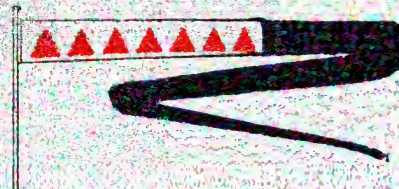
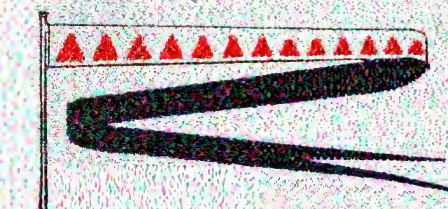
LIGHTHOUSE
SERVICE



COMMISSIONER OF
LIGHTHOUSES



SUPERINTENDENT OF
LIGHTHOUSES



PENNANTS COAST AND GEODETIC SURVEY

WATCH OFFICER'S GUIDE

PLATE IX

SPECIAL FLAGS

PUBLIC HEALTH SERVICE



SURGEON GENERAL



PUBLIC HEALTH

DEPARTMENT OF LABOR

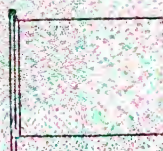


IMMIGRATION

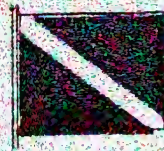
YACHT FLAGS



ENSIGN



OWNER'S DINNER



GUEST FLAG



CREW'S MEAL



OWNER'S ABSENT



AMBULANCE



NIGHT PENNANT



COAL



WATER

PLATE X

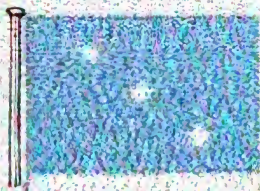
ARGENTINE FLAGS



MAN-OF WAR



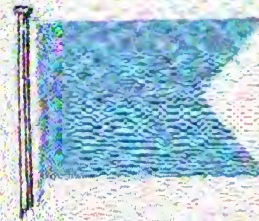
MERCHANT



ADMIRAL

VICE ADMIRAL
Same as Admiral
except two stars

REAR ADMIRAL
Same as Admiral
except one star



CAPTAIN COMMANDING
AFLOAT



SENIOR OFFICER

SLEEVE MARKS



Admiral



Vice
Admiral



Rear
Admiral



Captain



Commander



Lieut.
Comdr.



Lieut.



Sub
Lieut.



Sub
Lieut.



Midshipman



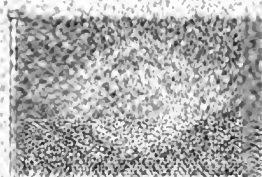
Naval
Cadet

NOTE: Colored cloth between stripes as follows:

Engineers—sky blue
Surgeons—red
Paymasters—white

PLATE XI

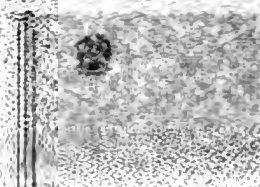
BRAZILIAN FLAGS



NATIONAL
MERCHANT



CHIEF OF NAVAL STAFF



ADMIRAL



SENIOR OFFICER*

* If Commodore, carries small white anchor. If Captain, carries one white star.

VICE ADMIRAL
Same as Admiral, except
three stars of same size.

REAR ADMIRAL
Same as Admiral, except
two stars of same size.

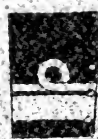
SLEEVE MARKS



Admiral



Vice
Admiral



Rear
Admiral



Captain



Commander



Lieutenant
Commander



Lieutenant



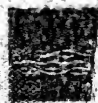
First
Lieutenant



Second
Lieutenant



Midshipman



Reserve
Officer

PLATE XII

BRITISH FLAGS



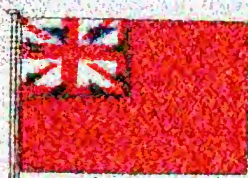
WHITE ENSIGN



BLUE ENSIGN—MERCHANT
COMMANDED BY RESERVE
OFFICER, Home and Colonial
Government Departments



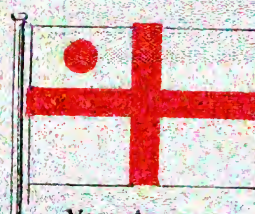
UNION FLAG
JACK



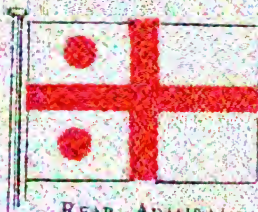
MERCHANT
COLONIES
(with badge in some
cases)



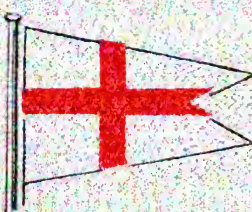
ADMIRAL



VICE ADMIRAL



REAR ADMIRAL



COMMODORE 1ST CLASS OR
SENIOR OFFICER BROAD
PENNANT

SLEEVE MARKS



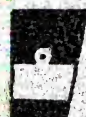
Admiral



Vice
Admiral



Rear
Admiral



Commodore



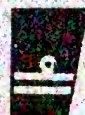
Captain



Commander



Lieutenant
Commander

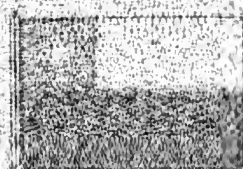


Lieutenant

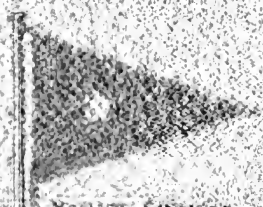


Sub
Lieutenant

CHILEAN FLAGS



NATIONAL FLAG



SENIOR OFFICERS

DIRECTOR OF THE NAVY
Same as Admiral
U. S. Navy

VICE AND REAR ADMIRALS
AND COMMODORES
Same as U. S. Navy

SLEEVE MARKS



Vice
Admiral



Rear
Admiral



Captain



Commander



Lieutenant
Commander



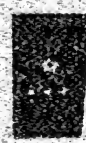
Senior
Lieutenant



Junior
Lieutenant

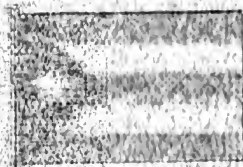


Sub
Lieutenant



Midshipman

CUBAN FLAGS

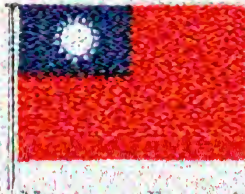


NATIONAL FLAG

Sleeve marks same as
United States, except no
flag officers.

PLATE XIV

CHINESE FLAGS



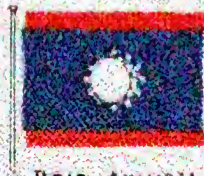
NATIONAL ENSIGN*



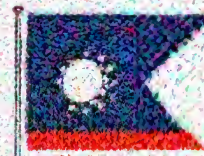
ADMIRAL



VICE ADMIRAL



REAR ADMIRAL



SENIOR NAVAL OFFICER

* Merchant flag same as National, except with four, wavy yellow, horizontal stripes on red.

SLEEVE MARKS



Admiral



Vice Admiral



Rear Admiral



Commodore



Captain



Commander



Lieutenant Commander



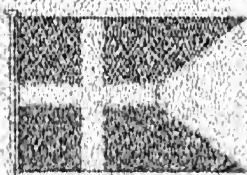
Lieutenant

Sub Lieut.
1st classSub Lieut.
2d class

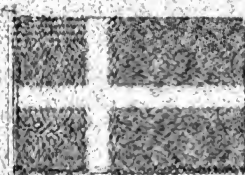
COLOR BETWEEN STRIPES: Engineers, none; Surgeons, red; Paymasters, white; Engine Constructor, purple; Ship Constructor, drab grey or ash color; Navigating Officers, light indigo blue. All these branches without the curl or emblem over top stripe.

PLATE XV

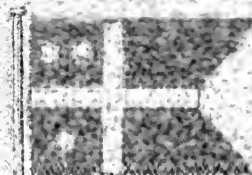
DANISH FLAGS



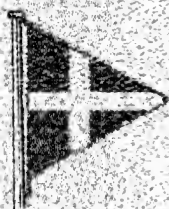
ENSIGN
JACK



MERCHANT



ADMIRAL



SENIOR OFFICER

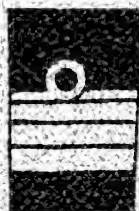


COMMODORE

VICE ADMIRAL
Same as Admiral, except
has only one star in each
canton, next to fly.

REAR ADMIRAL
Same as Admiral, except
has only one star in upper
canton.

SLEEVE MARKS



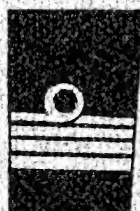
Admiral



Vice
Admiral



Rear
Admiral



Commodore



Captain



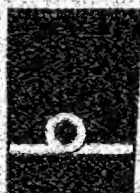
Commander



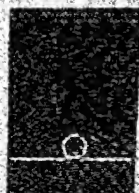
Lieutenant
Commander



Lieutenant



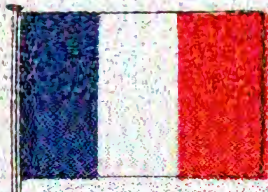
Sub
Lieutenant



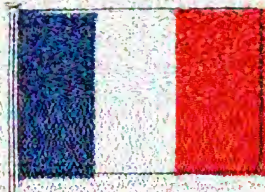
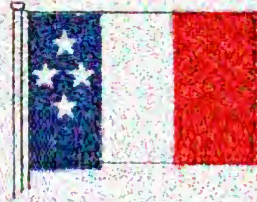
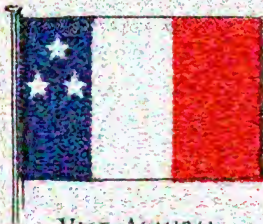
Midshipman

PLATE XVI

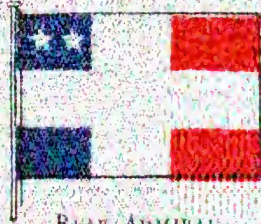
FRENCH FLAGS



MINISTER OF MARINE

ENSIGN
MERCHANTVICE ADMIRAL
Commander in Chief,
also Prefet Maritime.

VICE ADMIRAL



REAR ADMIRAL

CAPTAIN COMMANDING
INDEPENDENT DIVISION

SLEEVE MARKS

Vice
Admiral*Rear
Admiral

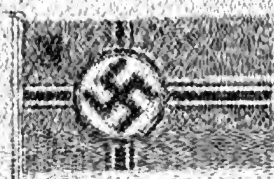
Captain

Commander (second
and fourth stripes,
white)Lieutenant
CommanderSenior
LieutenantJunior
LieutenantSub Lieutenant
and Midshipman

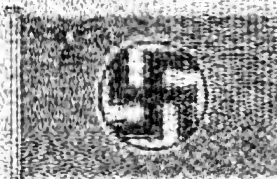
* Vice Admiral—Chief of Staff, five stars.

* Vice Admiral—Commander in Chief, four stars.

GERMAN FLAGS



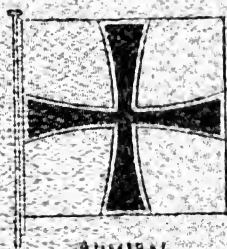
ENSIGN



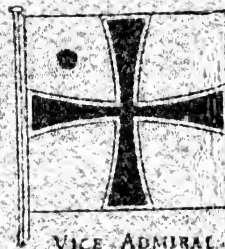
SERVICE FLAG



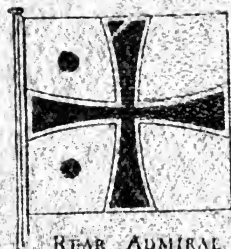
MERCHANT (Commanded
by former naval officer)
MERCHANT JACK
(without iron cross)



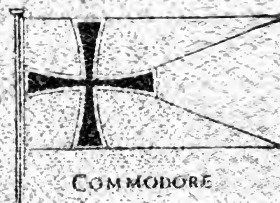
ADMIRAL



VICE ADMIRAL



REAR ADMIRAL



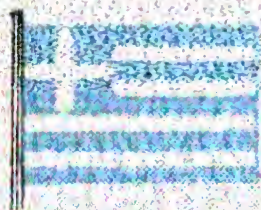
COMMODORE

SLEEVE MARKS

The rank insignia on sleeves is the same as United States, except:—
(1) A senior commander (Frigatten-Capitan) wears stripes of a captain and shoulder device of a commander. (2) There is no lieutenant junior grade. (3) Special devices for staff corps.

PLATE XVIII

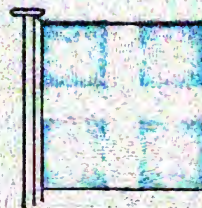
GRECIAN FLAGS



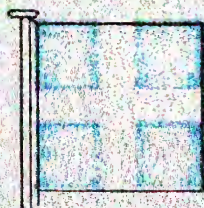
ENSIGN
MERCHANT



ADMIRAL



VICE ADMIRAL



REAR ADMIRAL



COMMODORE OR
CAPTAIN COMMANDING

SLEEVE MARKS



Admiral



Vice
Admiral



Rear
Admiral



Captain



Commander



Lieutenant
Commander



Lieutenant



Sub
Lieutenant



Acting
Sub
Lieutenant

Staff corps have colors between stripes. Engineers have curl, others not.

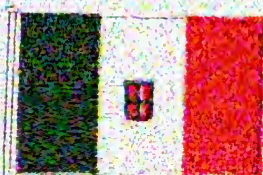
WATCH OFFICER'S GUIDE

PLATE XIX

ITALIAN FLAGS



ENSIGN



MERCHANT



ADMIRAL



VICE ADMIRAL



REAR ADMIRAL



CAPTAIN COMMANDING
DIVISION

SLEEVE MARKS



Admiral



Vice
Admiral



Rear
Admiral



Captain



Commander



Lieutenant
Commander



Lieutenant



Sub
Lieutenant



Midshipman

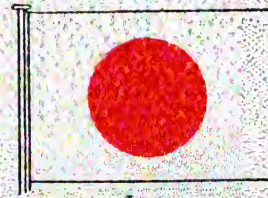
NOTE: A five-pointed silver star is worn on the lapel of the coat.

PLATE XX

JAPANESE FLAGS



ENSIGN



JACK
MERCHANT



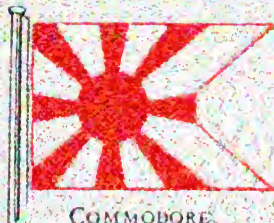
ADMIRAL



VICE ADMIRAL



REAR ADMIRAL



COMMODORE



SENIOR OFFICER PRESENT

SLEEVE MARKS



Admiral



Vice
Admiral



Rear
Admiral



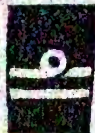
Captain



Commander



Lieutenant
Commander



Lieutenant



Sub
Lieutenant



Acting
Sub Lieut.

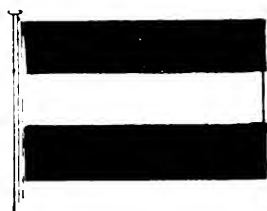


Midshipman

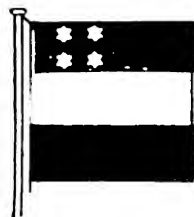
WATCH OFFICER'S GUIDE

PLATE XXI

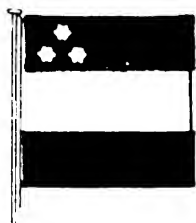
NETHERLANDS FLAGS



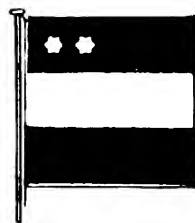
ENSIGN
NATIONAL AND
MERCHANT



ADMIRAL



VICE ADMIRAL



REAR ADMIRAL

SLEEVE MARKS



Admiral
of
Fleet



Admiral



Vice
Admiral



Rear
Admiral



Captain



Commander



Lieutenant
Commander



Senior
Lieutenant



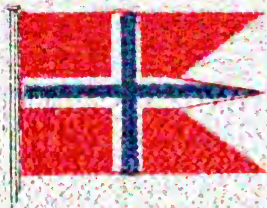
Junior
Lieutenant



Sub
Lieutenant

PLATE XXII

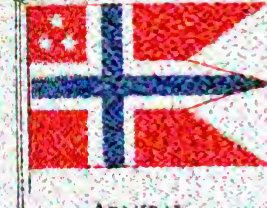
NORWEGIAN FLAGS



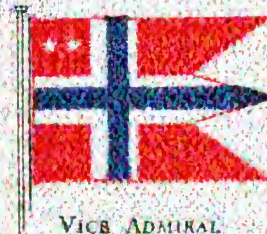
ENSIGN



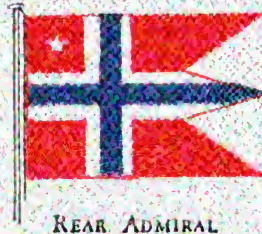
MERCHANT



ADMIRAL



VICE ADMIRAL



REAR ADMIRAL



BROAD
COMMAND

SLEEVE MARKS



Admiral



Vice
Admiral



Rear
Admiral



Commodore



Captain



Commander



Lieut. Comdr.
and Lieut.



Sub
Lieutenant

WATCH OFFICER'S GUIDE

PLATE XXIII

PERUVIAN FLAGS



ENSIGN
NATIONAL



MERCHANT



VICE ADMIRAL

REAR ADMIRAL
Same as Vice Admiral, without anchors

SLEEVE MARKS

A rising sun is in circle above stripes



Rear
Admiral



Captain



Commander



Lieutenant
Commander



Lieutenant



Sub
Lieutenant



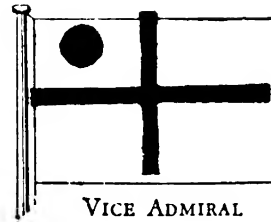
Sub
Lieutenant

PLATE XXIV

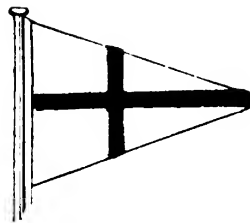
PORTUGUESE FLAGS



NATIONAL



VICE ADMIRAL



SENIOR OFFICER PRESENT

SLEEVE MARKS



Admiral



Vice Admiral



Rear Admiral



Captain



Commander



Lieutenant Commander



Lieutenant



Sub Lieutenant



Midshipman

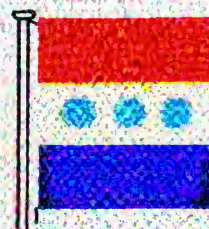
SPANISH FLAGS



ENSIGN
NATIONAL
JACK



MERCHANT



ADMIRAL



VICE ADMIRAL



REAR ADMIRAL



CAPTAIN
COMMANDING A DIVISION

SLEEVE MARKS

Same as for United States except there is no Admiral or Lieutenant (junior grade) and staff corps have no star, but instead have colors between stripes.

PLATE XXVI

SWEDISH FLAGS



ENSIGN JACK



NATIONAL
MERCHANT



ADMIRAL



SENIOR OFFICER

VICE ADMIRAL
Same as Admiral, except
two stars

REAR ADMIRAL
Same as Admiral, except
one star

MINISTER OF DEFENSE
Same as Admiral, except
cross instead of stars

SLEEVE MARKS



Admiral



Vice
Admiral



Rear
Admiral



Commodore



Captain



Commander



Commander and
Lieutenant Commander



Lieutenant



Sub
Lieutenant



Acting
Sub Lieut.

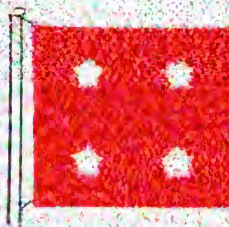
WATCH OFFICER'S GUIDE

PLATE XXVII

TURKISH FLAGS



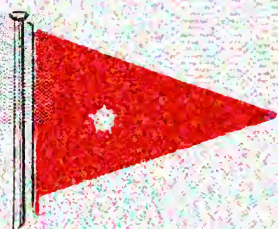
MAN-OF-WAR
NATIONAL
MERCHANT



ADMIRAL
OF FLEET



COMMODORE



SENIOR OFFICER PRESENT

* Admiral, three stars
Vice Admiral, two stars
vertically.
Rear Admiral, one star

SLEEVE MARKS

Same as British for all grades except there is no Lieutenant Commander and there is a Junior Captain with three and a half stripes and a Sub Lieutenant with one and a half stripes.

PLATE XXVIII

FLAGS OF COUNTRIES



ALBANIA
NATIONAL



ALBANIA
MERCHANT



AUSTRIA
NATIONAL



AUSTRIA
MERCHANT



BELGIUM
ENSIGN-MERCHANT



BOLIVIA
ENSIGN



BOLIVIA
NATIONAL



BULGARIA
ENSIGN



BULGARIA
NATIONAL
MERCHANT



COLOMBIA
ENSIGN



COLOMBIA
MERCHANT

FLAGS OF COUNTRIES



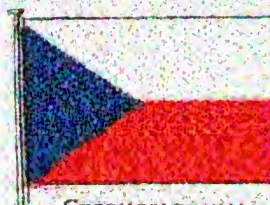
COSTA RICA
ENSIGN



COSTA RICA
NATIONAL-MERCHANT



CZECHOSLOVAKIA
NATIONAL



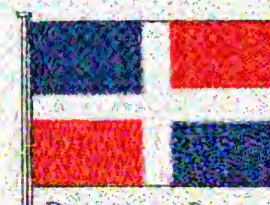
CZECHOSLOVAKIA
MERCHANT



DANZIG
MERCHANT



DOMINICAN REPUBLIC
ENSIGN-JACK



DOMINICAN REPUBLIC
MERCHANT



ECUADOR
ENSIGN
NATIONAL



ECUADOR
MERCHANT



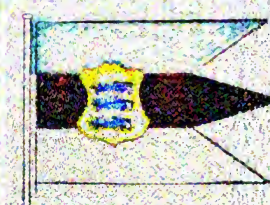
EGYPT
ENSIGN



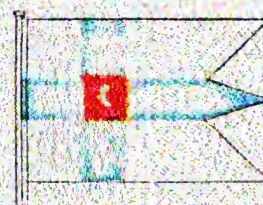
EGYPT
NATIONAL
MERCHANT



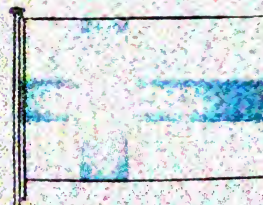
ESTONIA
NATIONAL MERCHANT



ESTONIA
MAN-OF-WAR



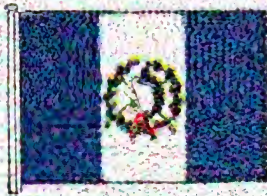
FINLAND
ENSIGN-JACK
National Flag same as
Man-of-War but rectan-
gular in shape



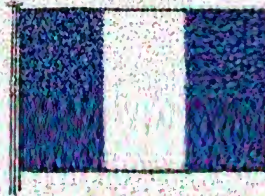
FINLAND
MERCHANT

PLATE XXX

FLAGS OF COUNTRIES



GUATEMALA
NATIONAL ENSIGN



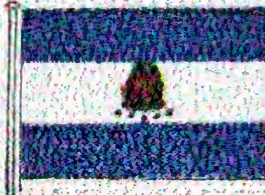
GUATEMALA
MERCHANT



HAITI
ENSIGN



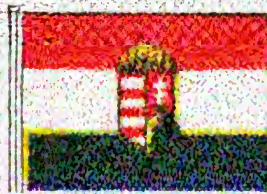
HAITI
MERCHANT



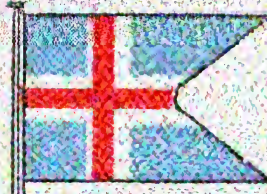
HONDURAS
ENSIGN



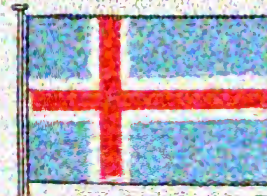
HONDURAS
NATIONAL MERCHANT



HUNGARY
NATIONAL



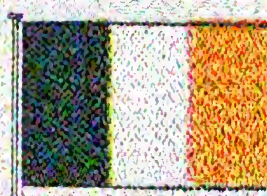
ICELAND
ENSIGN



ICELAND
MERCHANT



IRAQ
NATIONAL



IRISH FREE STATE
NATIONAL



LATVIA
ENSIGN
(dark red)



LATVIA
NATIONAL MERCHANT
(dark red)

WATCH OFFICER'S GUIDE

PLATE XXXI

FLAGS OF COUNTRIES



LIBERIA
MAN-OF-WAR
NATIONAL



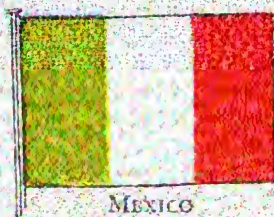
MANCHUKUO
NATIONAL MERCHANT



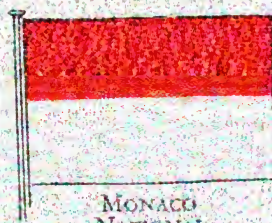
LITHUANIA
NATIONAL-MERCHANT



LUXEMBURG
NATIONAL



MEXICO
MERCHANT



MONACO
NATIONAL



MOROCCO
NATIONAL



MOROCCO
MERCHANT



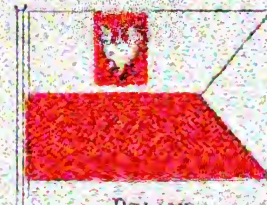
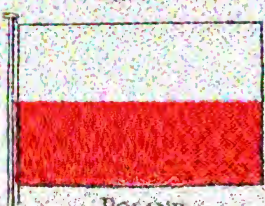
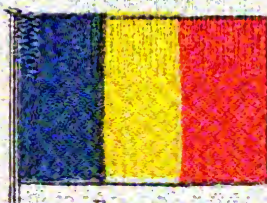
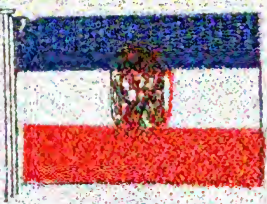
NICARAGUA
NATIONAL
MERCHANT

PLATE XXXII

FLAGS OF COUNTRIES

ENSIGN
NATIONAL

PANAMA

NATIONAL ENSIGN
MERCHANTPERSIA
MAN-OF-WAR
(Light Green)PERSIA
NATIONAL
MERCHANT
(Light Green)POLAND
ENSIGNPOLAND
MERCHANTPOLAND
NATIONALRUMANIA
ENSIGNROUMANIA
MERCHANTSALVADOR
ENSIGNSALVADOR
MERCHANTSERBS,
CROATS AND SLOVENES
(YUGOSLAVIA)
MAN-OF-WARSERBS,
CROATS AND SLOVENES
(YUGOSLAVIA)
NATIONAL MERCHANT

WATCH OFFICER'S GUIDE

PLATE XXXIII

FLAGS OF COUNTRIES



SIAM
ENSIGN



SIAM
NATIONAL
MERCHANT



SWITZERLAND
NATIONAL



SYRIA
NATIONAL



TUNIS
NATIONAL
MERCHANT



UNION OF SOCIALIST
SOVIET REPUBLICS
ENSIGN



UNION OF SOCIALIST
SOVIET REPUBLICS
NATIONAL



URUGUAY
MERCHANT-NATIONAL
ENSIGN



VENEZUELA
NATIONAL ENSIGN



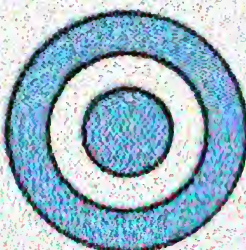
VENEZUELA
MERCHANT

AIRCRAFT WING MARKINGS

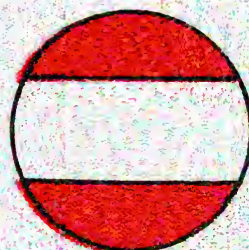
NOTE: Cockades illustrated appear on upper and under wing surfaces and, in most cases, on fuselages. Rudder surfaces generally carry the same colors in strips or other design.



AFGHANISTAN



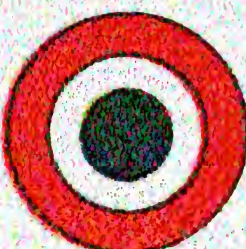
ARGENTINA (Army)
Has black anchor
surcharged for Navy



AUSTRIA



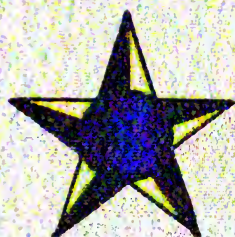
BELGIUM



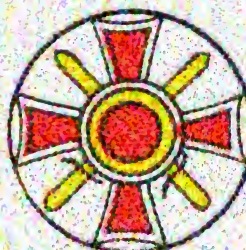
BOLIVIA



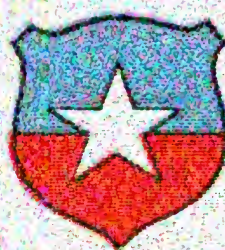
BRAZIL (Navy)



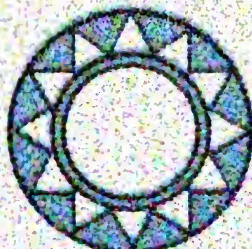
BRAZIL (Army)



BULGARIA



CHILE



CHINA



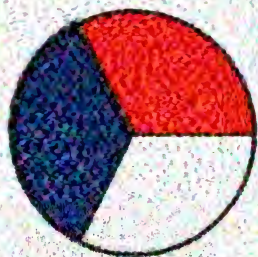
COLOMBIA



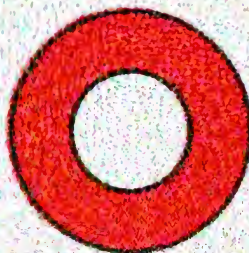
CUBA

WATCH OFFICER'S GUIDE

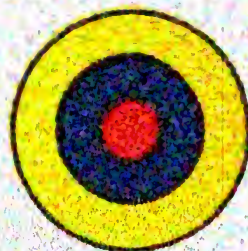
PLATE XXXV



CZECHOSLOVAKIA



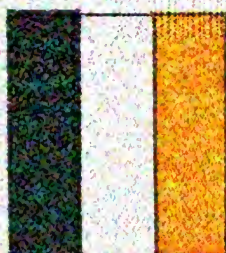
DENMARK



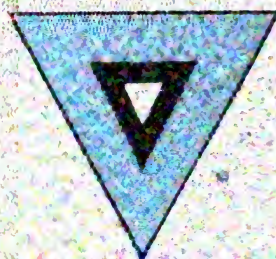
ECUADOR



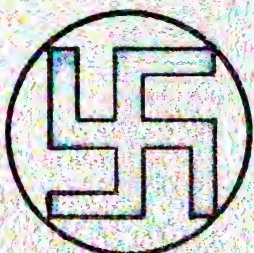
EGYPT



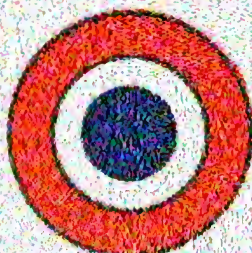
EIRE (Ireland)



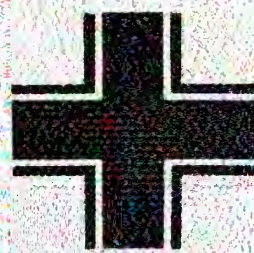
ESTONIA



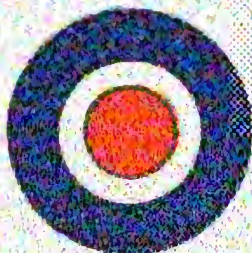
FINLAND



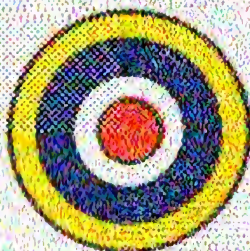
FRANCE (Army)
Navy has black
anchor surcharged



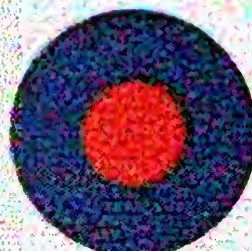
GERMANY



GREAT BRITAIN

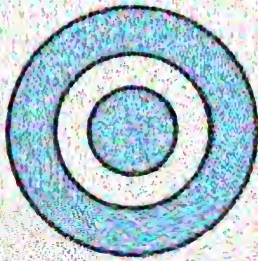


GREAT BRITAIN
Day Bombing

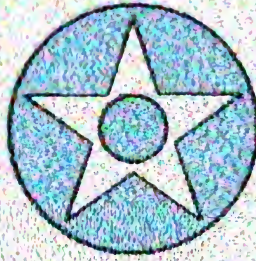


GREAT BRITAIN
Night Bombing

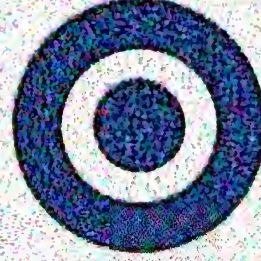
PLATE XXXVI



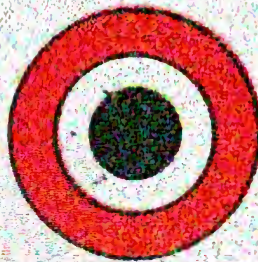
GREECE (Army)
Navy dark blue



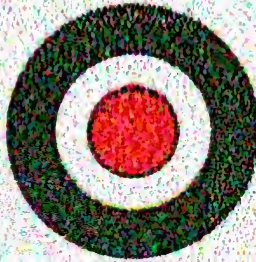
GUATEMALA



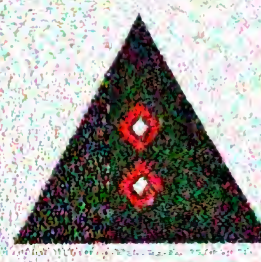
HONDURAS



HUNGARY



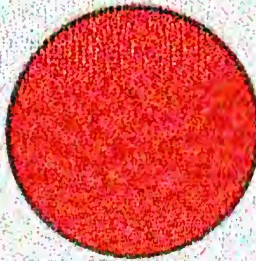
IRAN



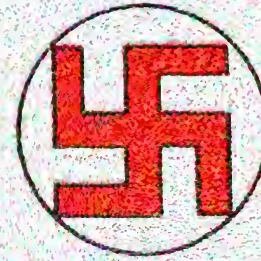
IRAQ



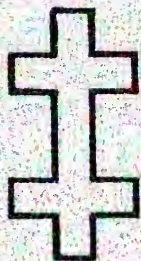
FASCIST ITALY



JAPAN



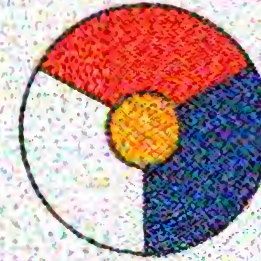
LATVIA



LITHUANIA



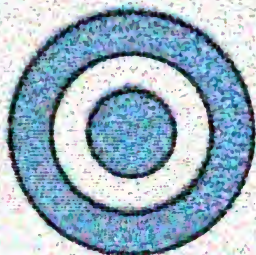
MEXICO



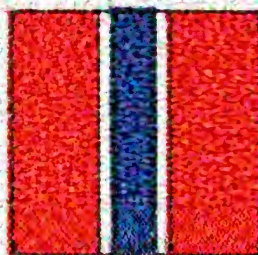
NETHERLANDS

WATCH OFFICER'S GUIDE

PLATE XXXVII



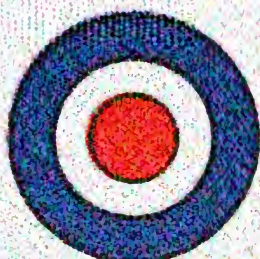
NICARAGUA



NORWAY



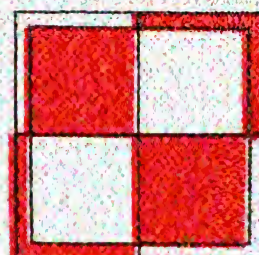
PANAMA



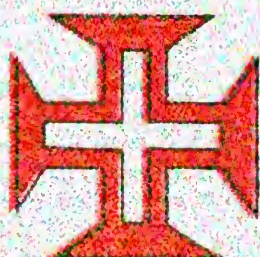
PARAGUAY



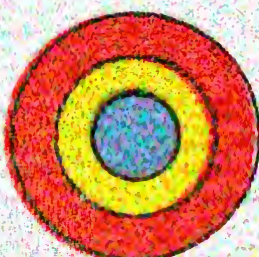
PERU



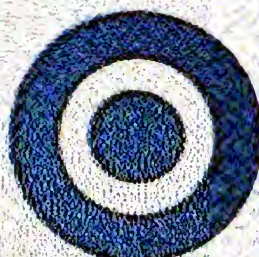
POLAND



PORTUGAL



RUMANIA



SALVADOR



SIAM



SOUTH AFRICA

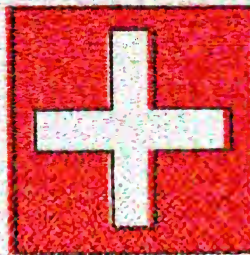


SPAIN

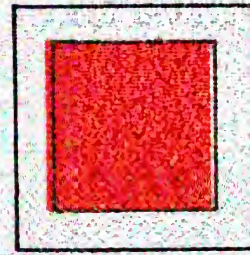
PLATE XXXVIII



SWEDEN



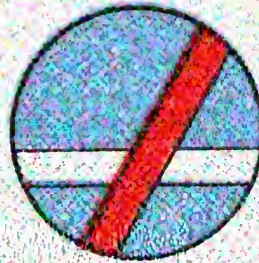
SWITZERLAND



TURKEY



UNITED STATES



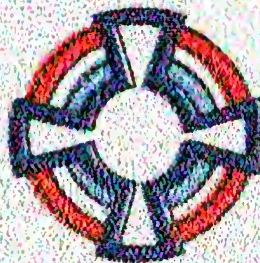
URUGUAY



U.S.S.R.



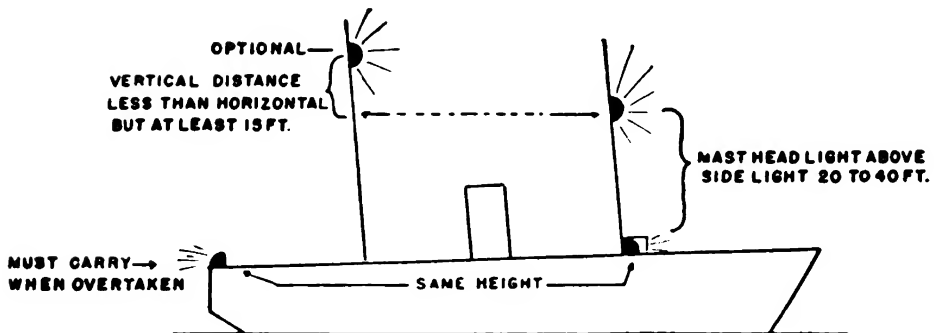
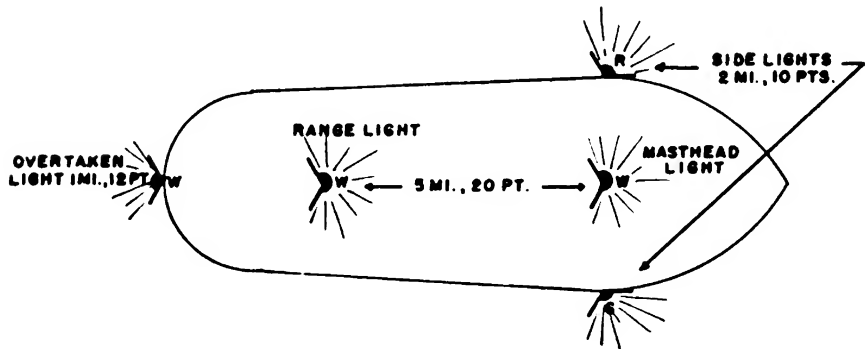
VENEZUELA



YUGOSLAVIA

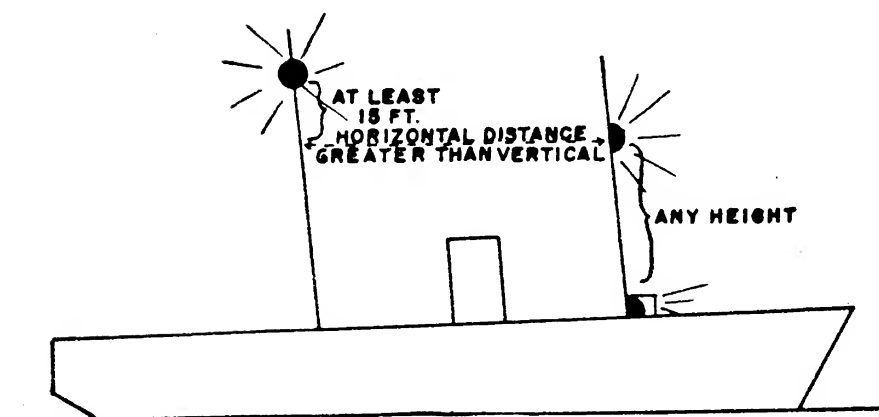
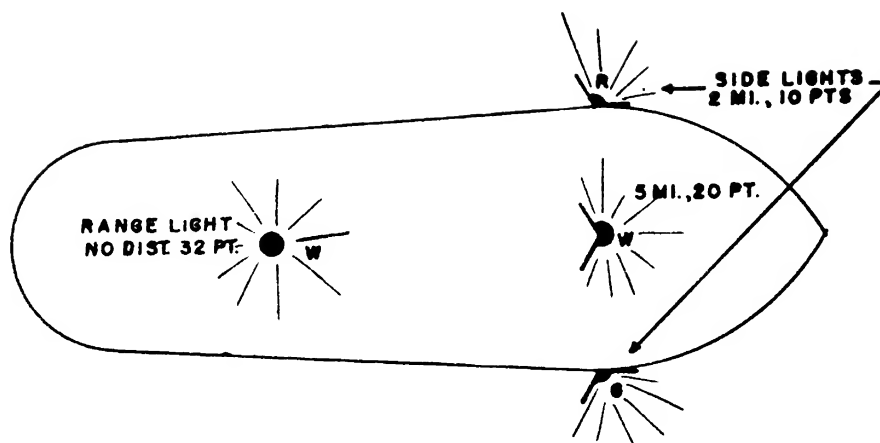
Chapter XXV

**LIGHTS REQUIRED BY THE
RULES OF THE ROAD**

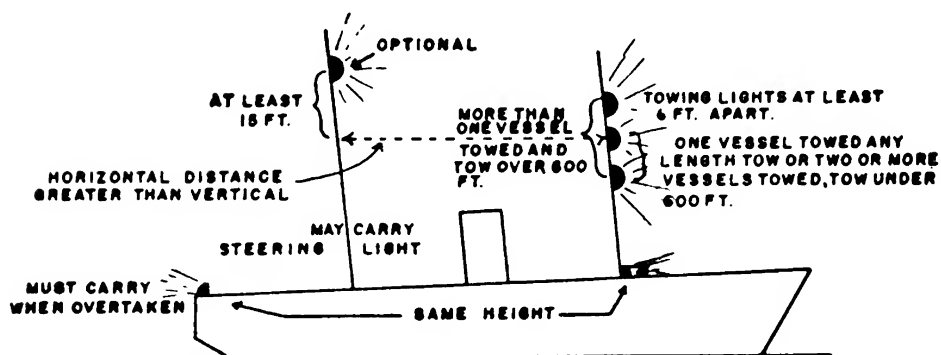
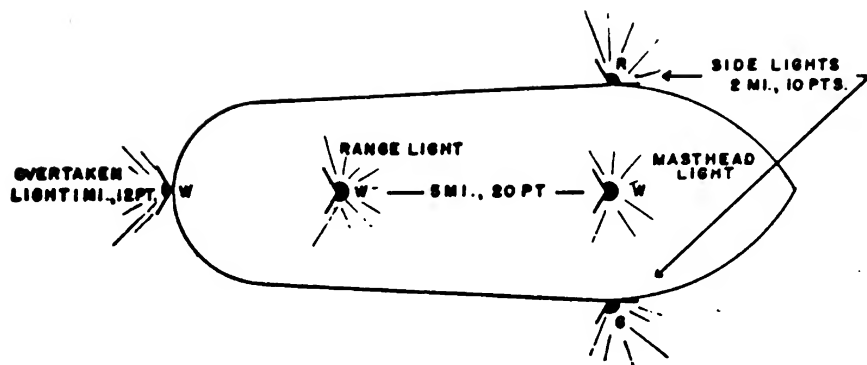


SEAGOING STEAMER
International and Inland

WATCH OFFICER'S GUIDE

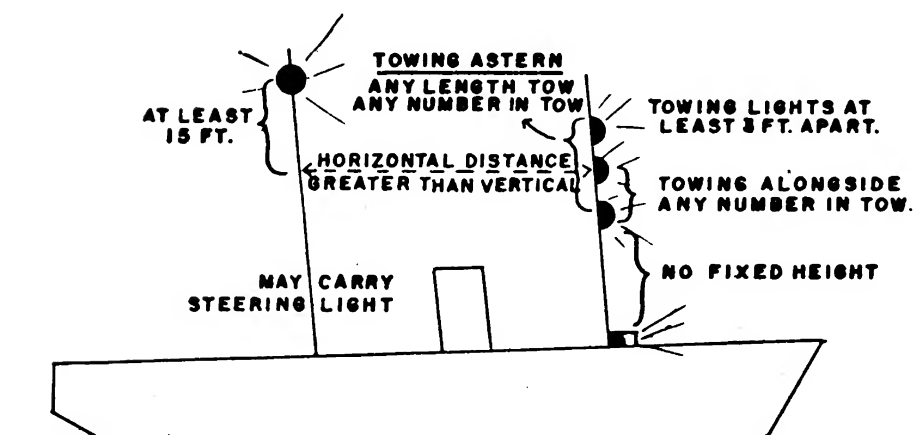
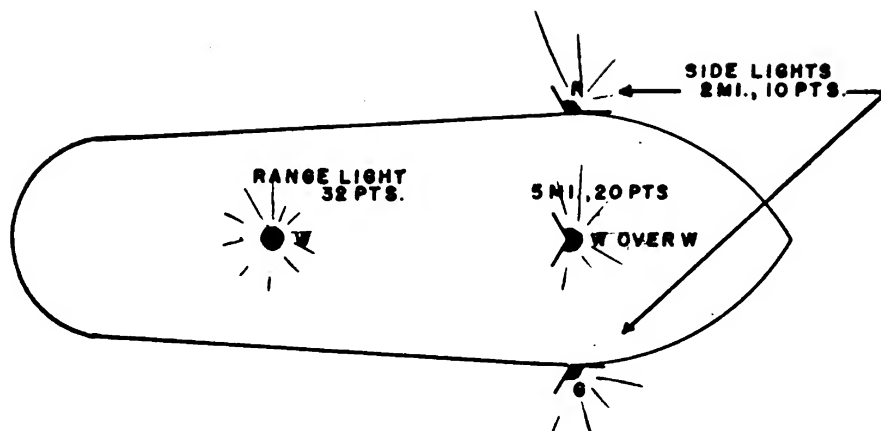


NON-SEAGOING STEAMER
(Except Ferry Boats)
Inland



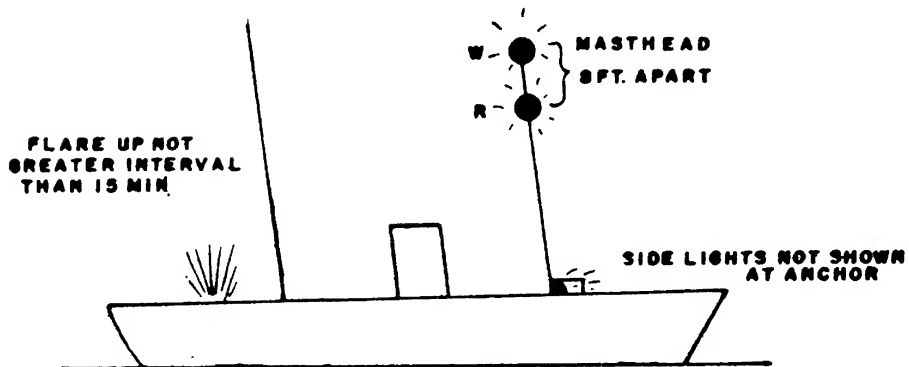
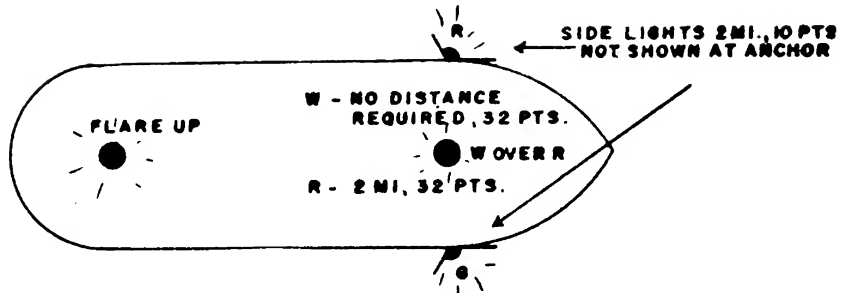
VESSEL TOWING International

WATCH OFFICER'S GUIDE

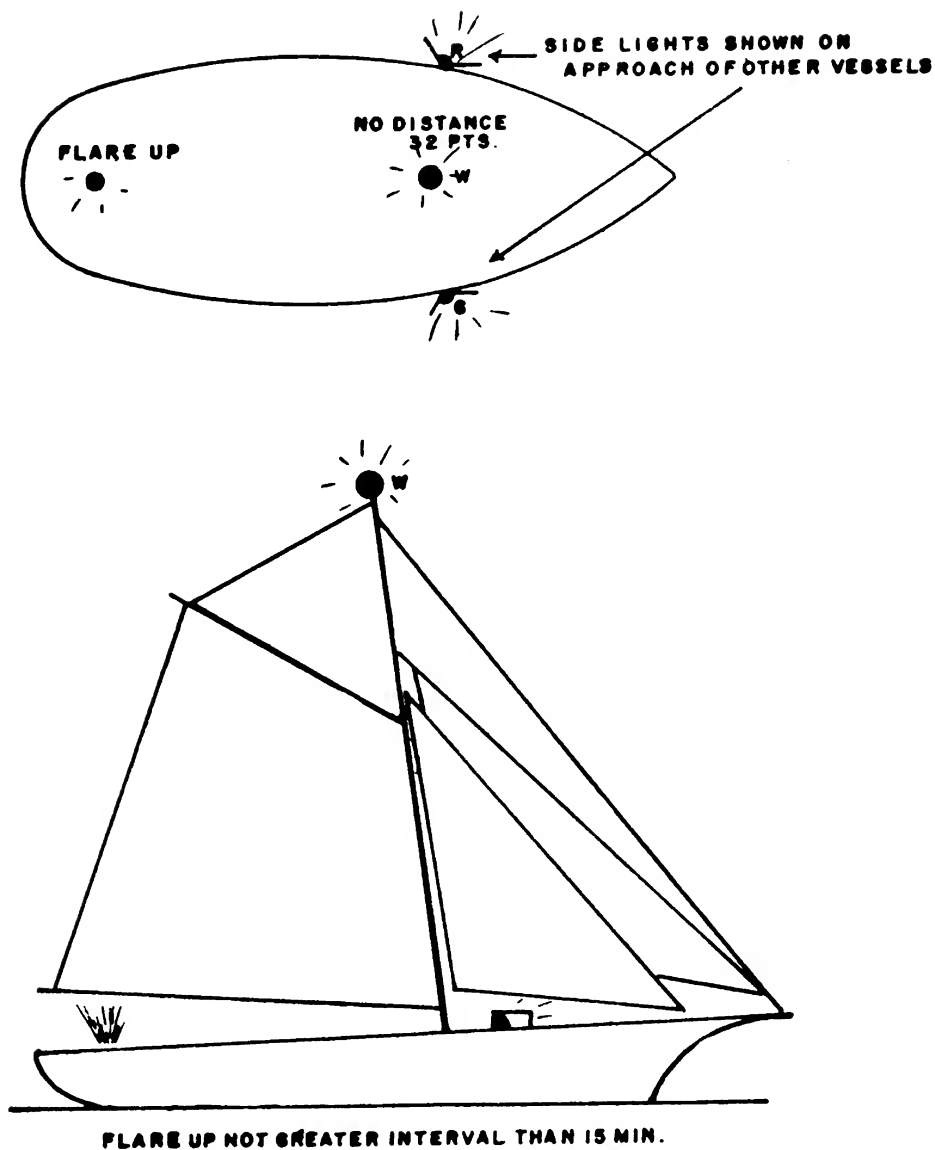


TOWING LIGHTS: MAY BE ON MAINMAST.
TWO IF TOW IS ALONGSIDE
THREE IF TOW IS ASTERN.

Non-SEAGOING TUG Inland

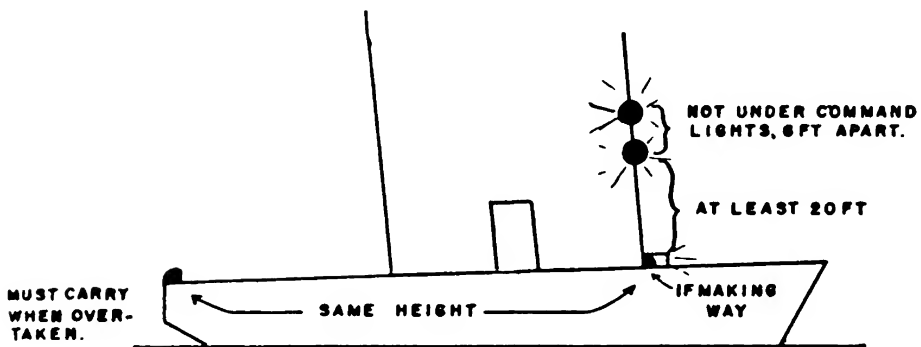
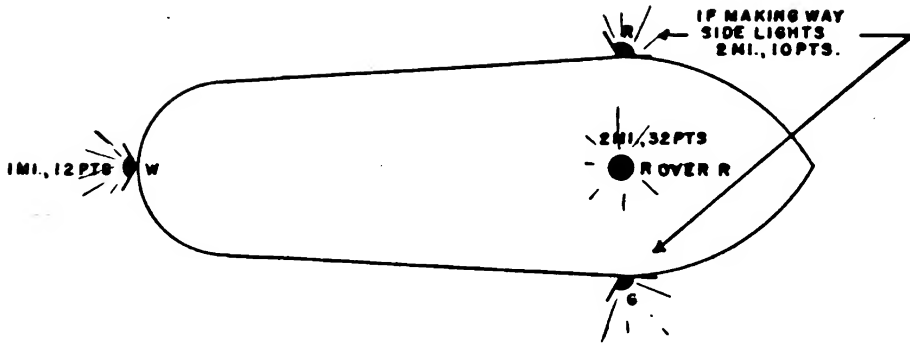


STEAM PILOT VESSEL
U. S. Waters
Engaged on Station
International and Inland



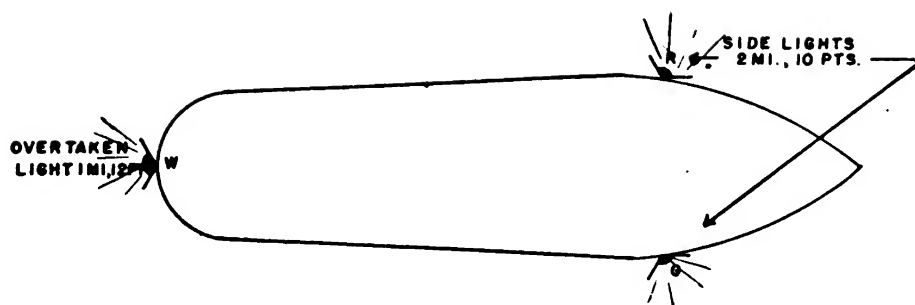
PILOT VESSEL
Engaged on Station
Sail or Steam
International

WATCH OFFICER'S GUIDE

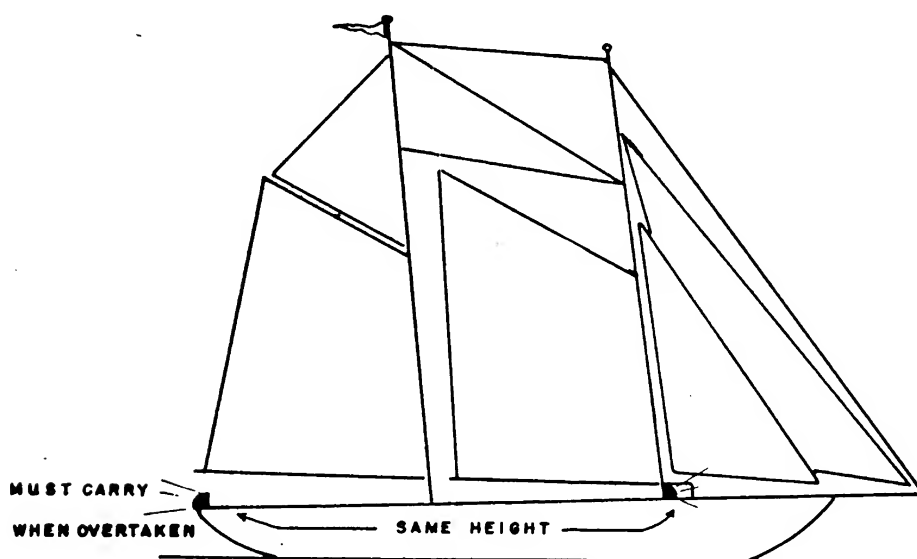


NOT UNDER COMMAND
Steam or Sail Vessel
International

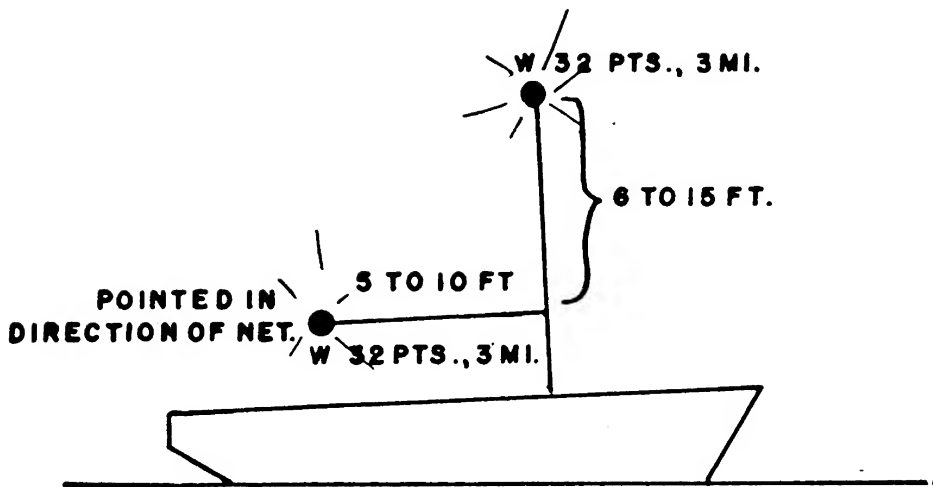
WATCH OFFICER'S GUIDE



INLAND RULES SAME EXCEPT WHITE OVERTAKEN LIGHT
NOT RESTRICTED TO 12 PTS.



SAILING VESSEL
International

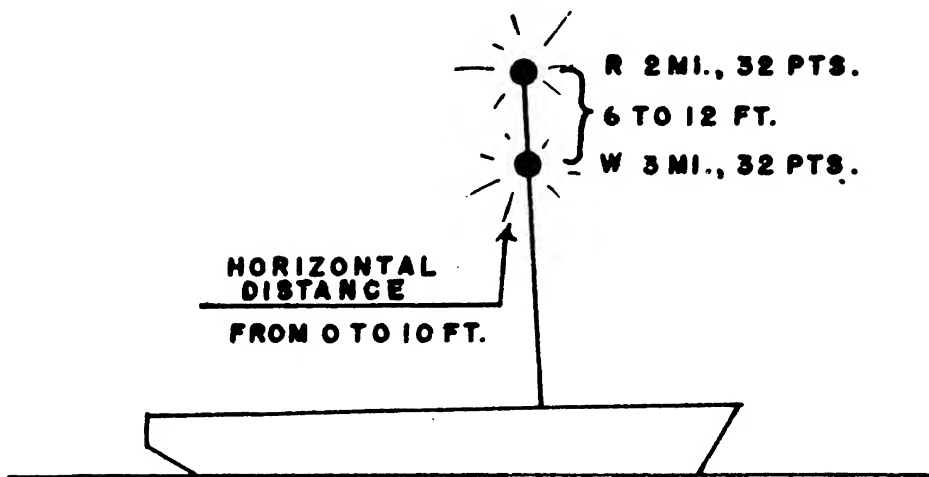


MAY USE FLARE OR WORKING LIGHTS.

FISHING VESSEL

International

(Except open boats—with drift lines or nets)

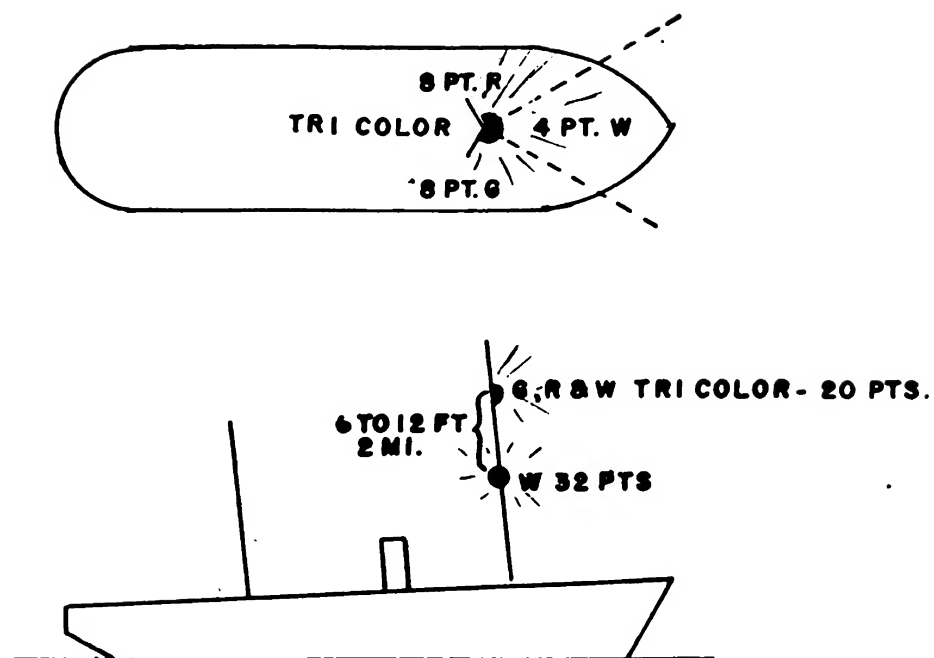


ANY FISHING VESSEL

(Over 10 ton)

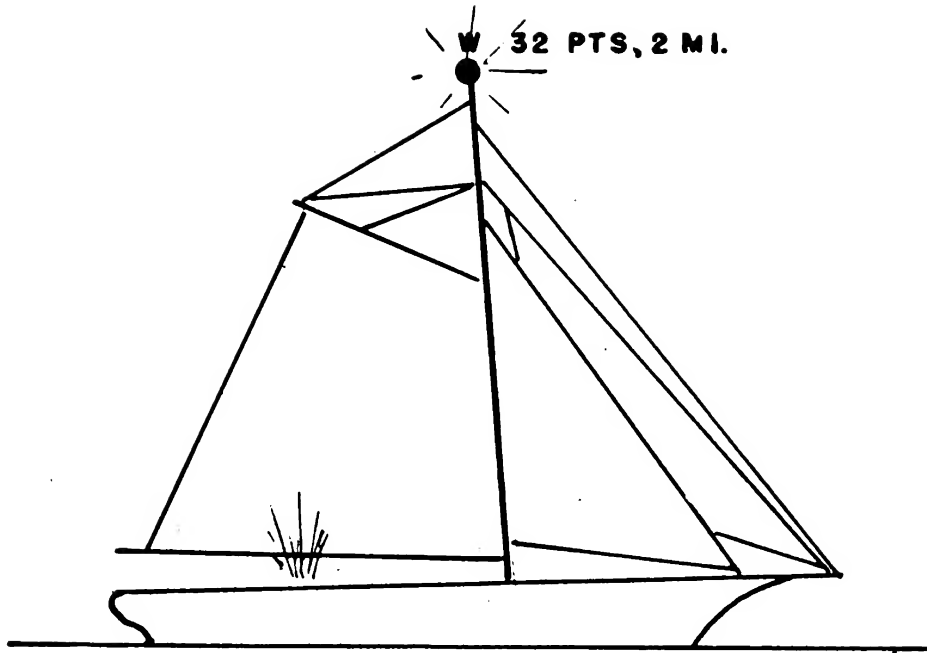
Inland

WATCH OFFICER'S GUIDE



MAY USE FLARE UP & WORKING LIGHTS

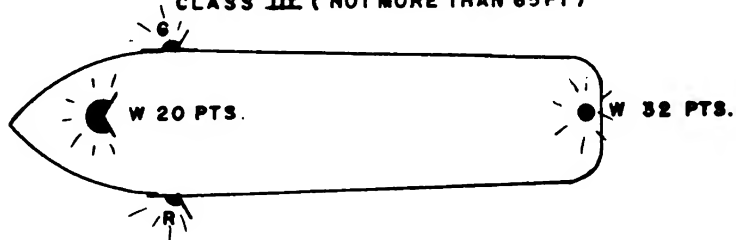
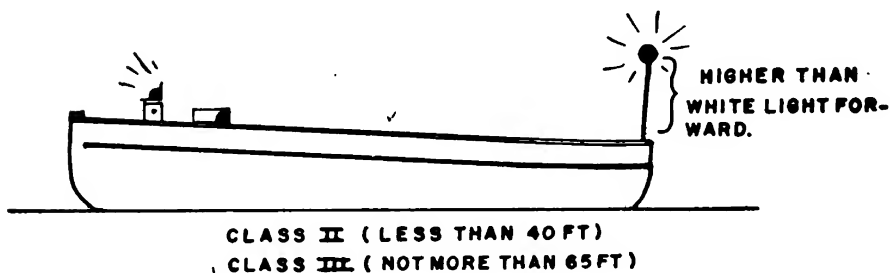
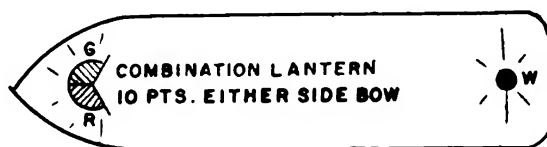
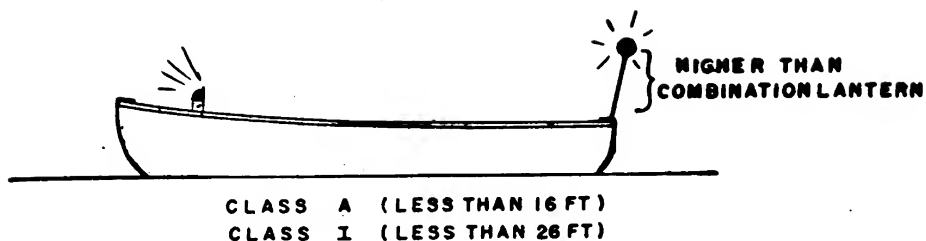
STEAM TRAWLER
Oyster Dredger
International



FLARE UP WHEN APPROACHED

SAILING TRAWLER
(Or vessel fishing without nets)
International

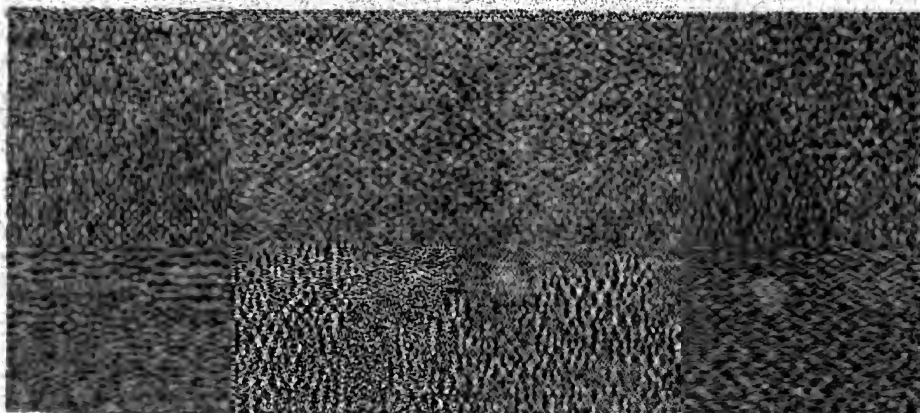
WATCH OFFICER'S GUIDE



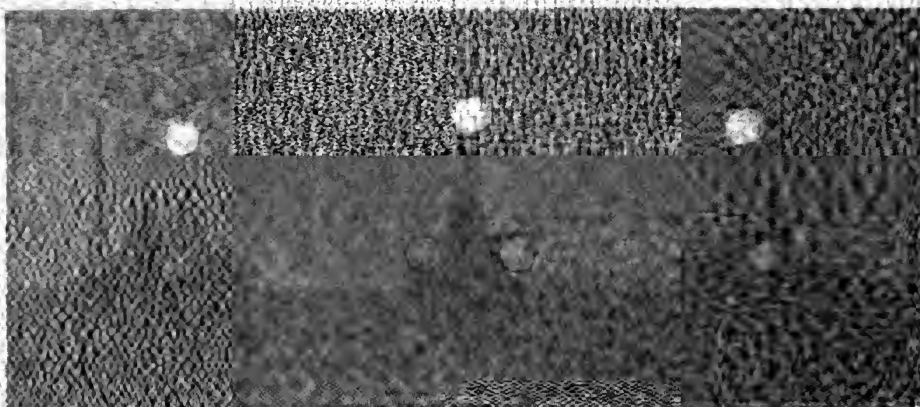
VISIBILITY OF ALL MOTOR BOAT LIGHTS
WHITE 2 MILES
COLORED 1 MILE

MOTOR BOATS Inland

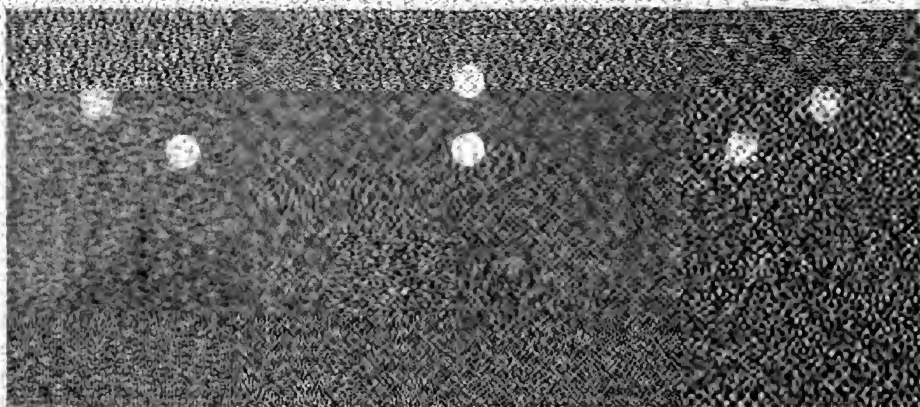
Identification of Vessels by Their Lights



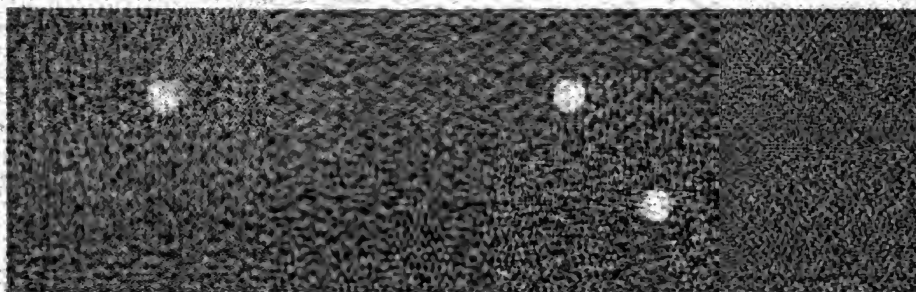
A Vessel Under Sail
INTERNATIONAL AND INLAND



Steamer Not Showing Range Lights
INTERNATIONAL



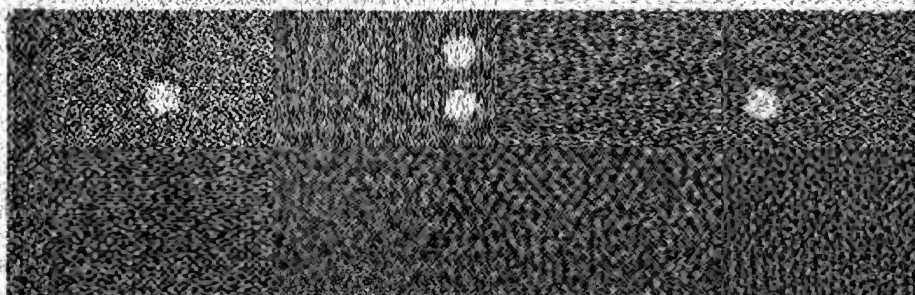
Steamer Showing Range Lights
INLAND AND INTERNATIONAL



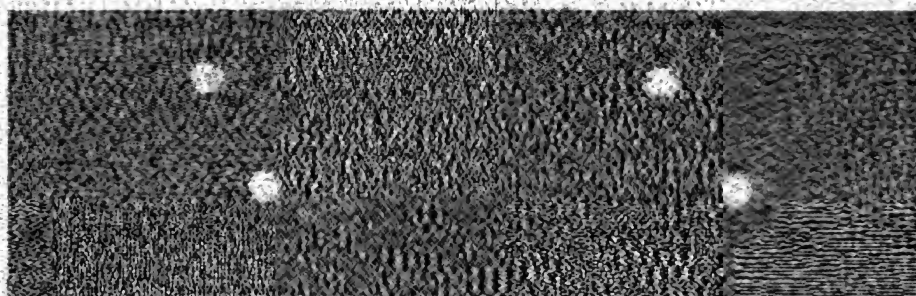
Tackle Extending
Less Than 150 Feet

Open Boats
INTERNATIONAL

Tackle Extending
More Than 150 Feet
Show lower light
when approached.



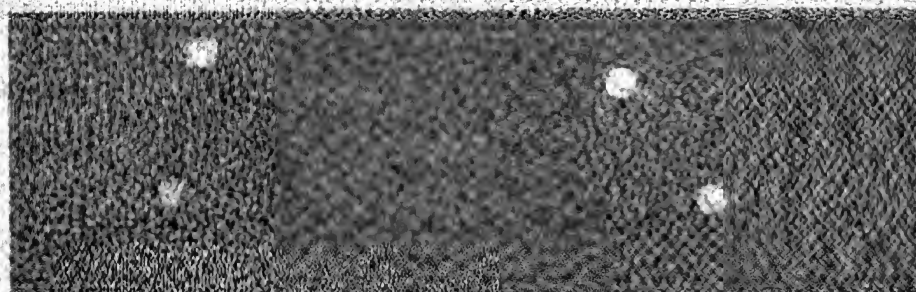
Steam Trawler
INTERNATIONAL



Drift Net Fishing

INTERNATIONAL

Line Fishing

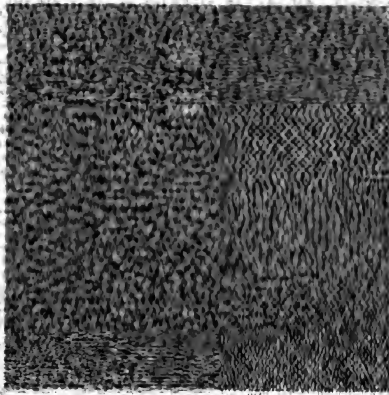


Sailing Trawler or Dredge

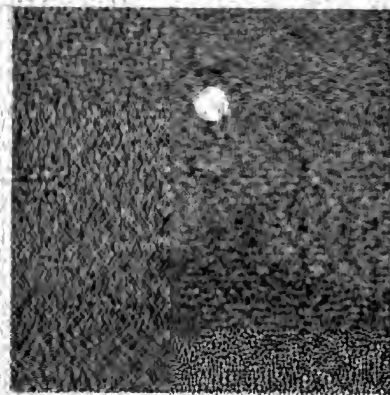
Any Vessel With Fishing
Gear Out and Anchored

INTERNATIONAL

Fishing Vessel's Lights



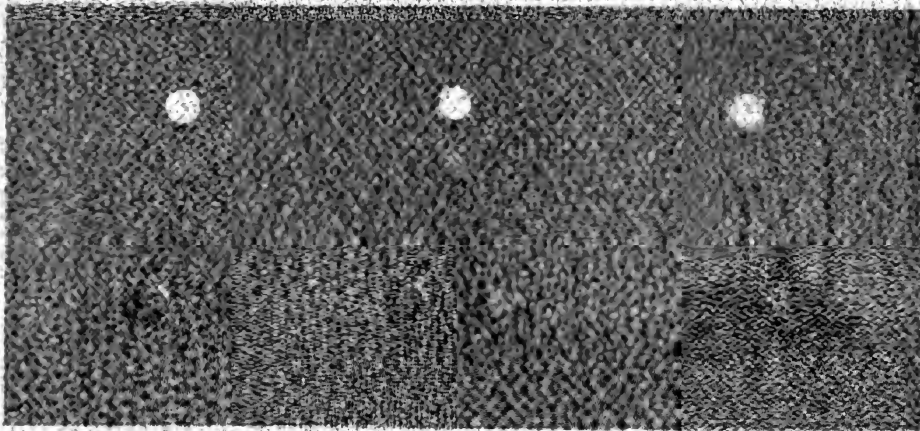
Not Under Command



Working Telegraph Cable

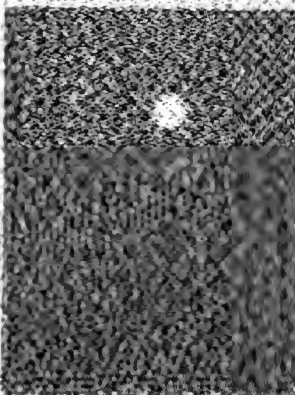
Both carry side lights if making way through the water

INTERNATIONAL



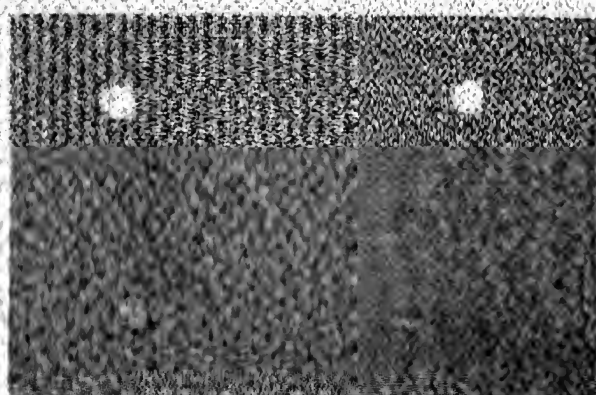
Steam Pilot Vessel Under Way in U. S. Waters

INTERNATIONAL AND INLAND



Steam Pilot Vessel

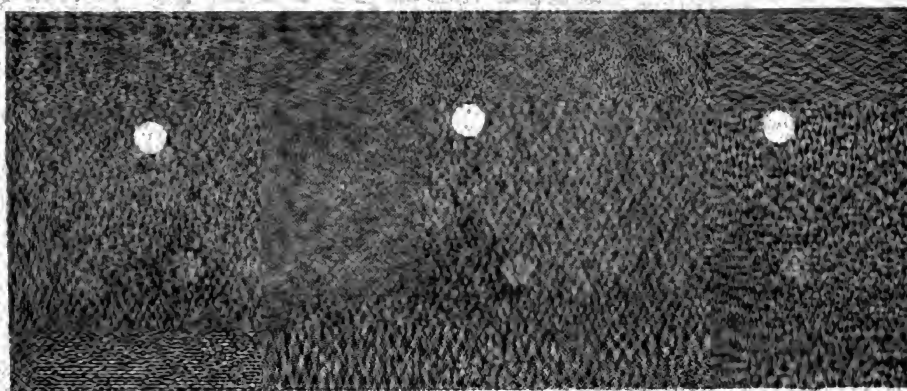
At Anchor in
U. S. Waters



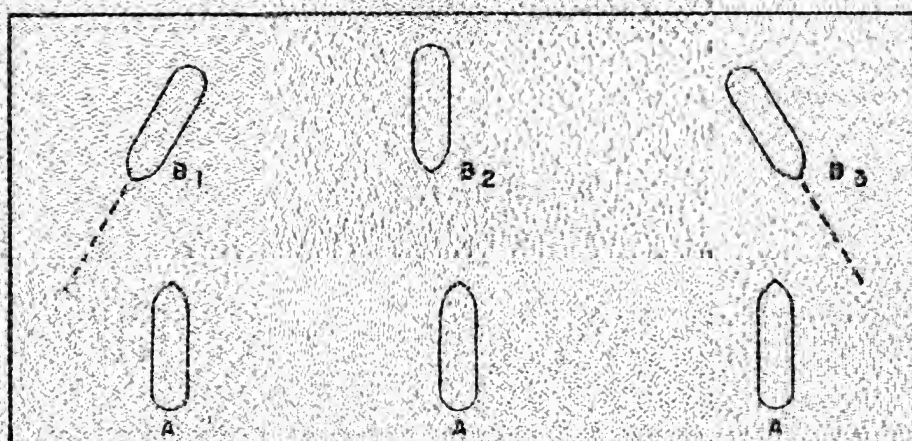
Sailing Pilot Vessel

On Duty Under Way On Duty Anchored
Side Lights and Flare Up Shown
Up Shown at Intervals at Intervals

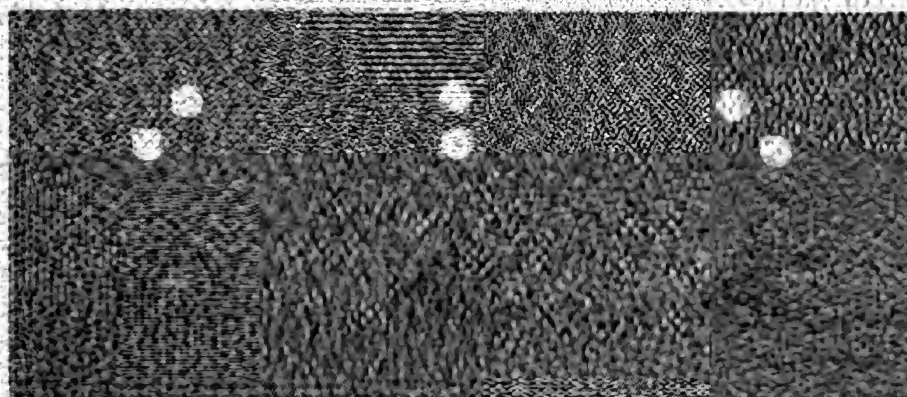
INTERNATIONAL AND INLAND



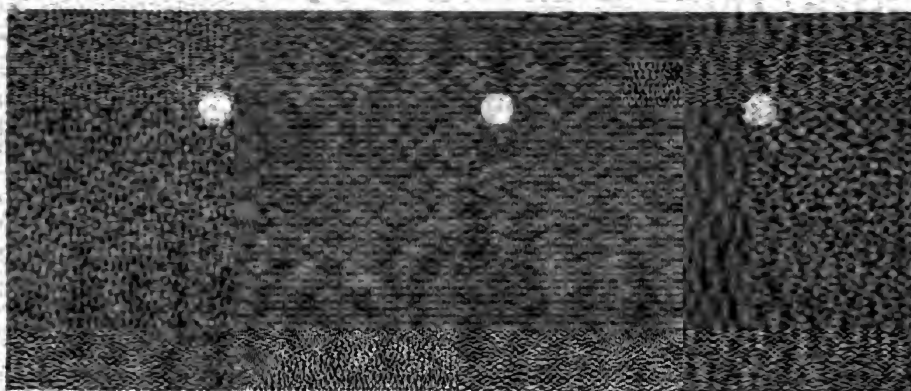
Without Range Lights
INTERNATIONAL



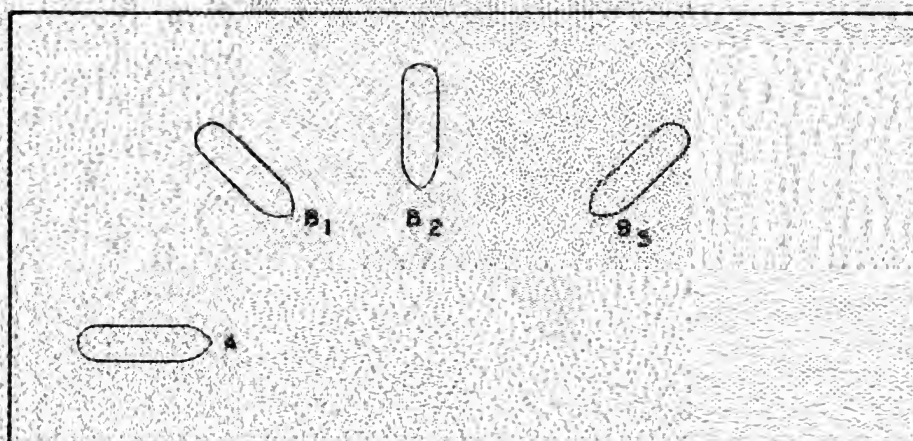
A's View of B₁ B₂ B₃ Meeting



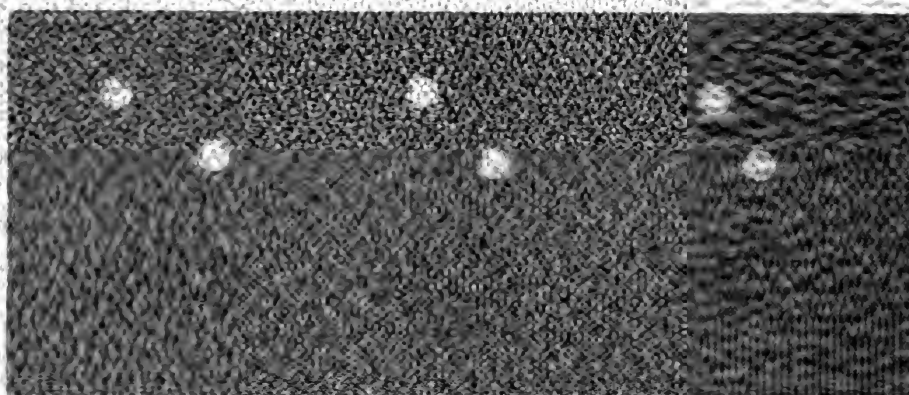
With Range Lights
INTERNATIONAL AND INLAND



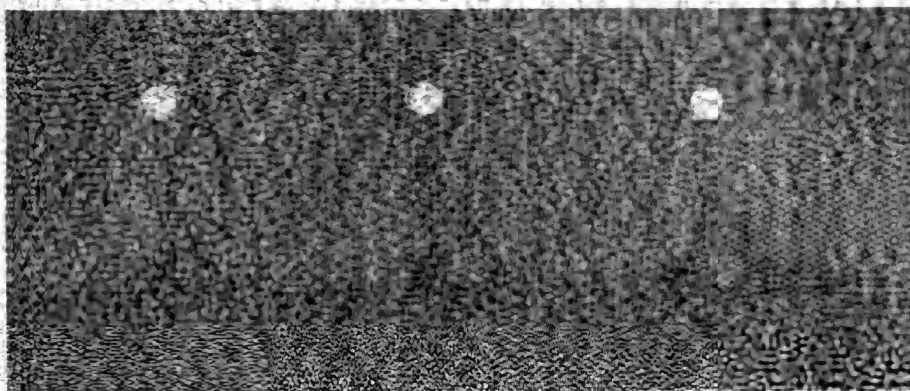
Without Range Lights
INTERNATIONAL



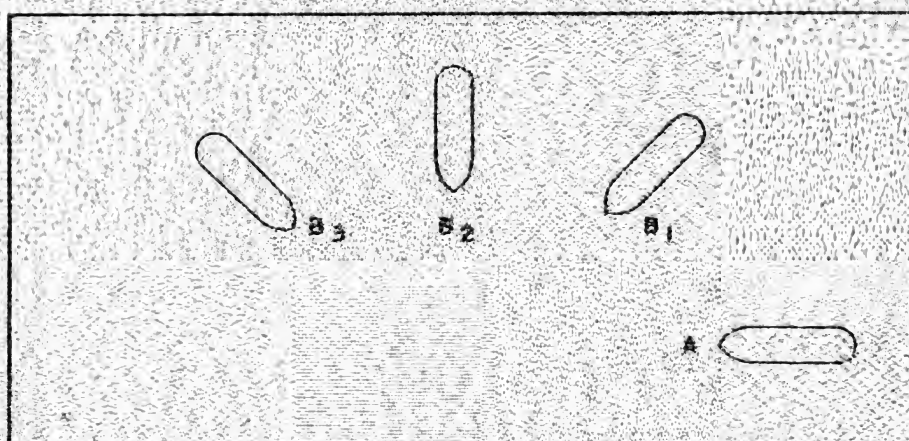
A's view of B₁, B₂, B₃ to Port



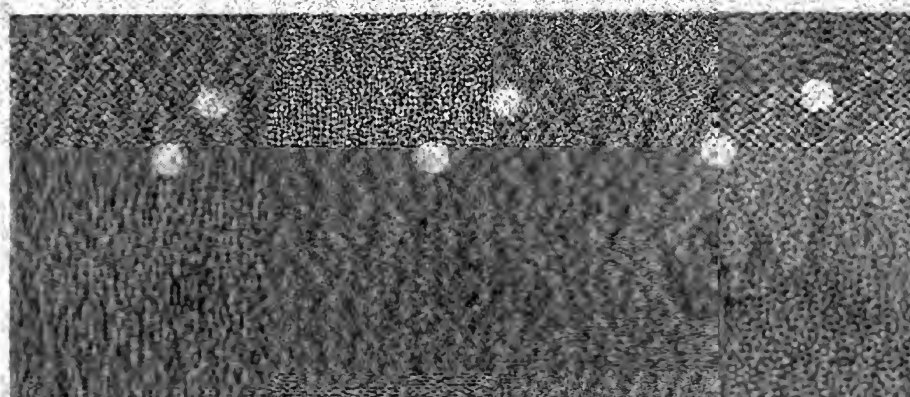
With Range Lights
INTERNATIONAL AND INLAND



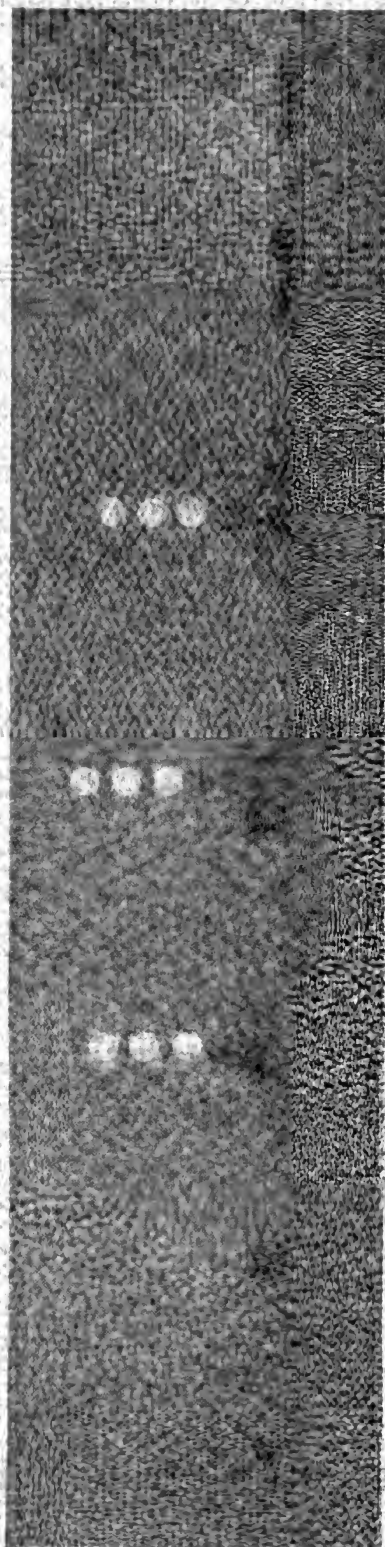
Without Range Lights
INTERNATIONAL



A's View of B₁, B₂, B₃ to Starboard

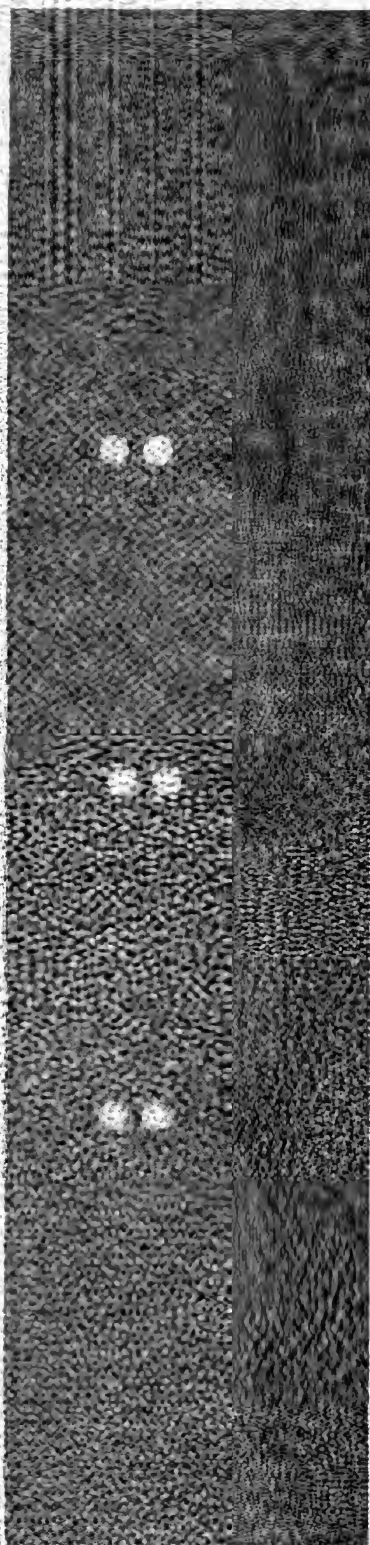


With Range Lights
INTERNATIONAL AND INLAND



More Than One Vessel in Tow (tow over 500 feet long)

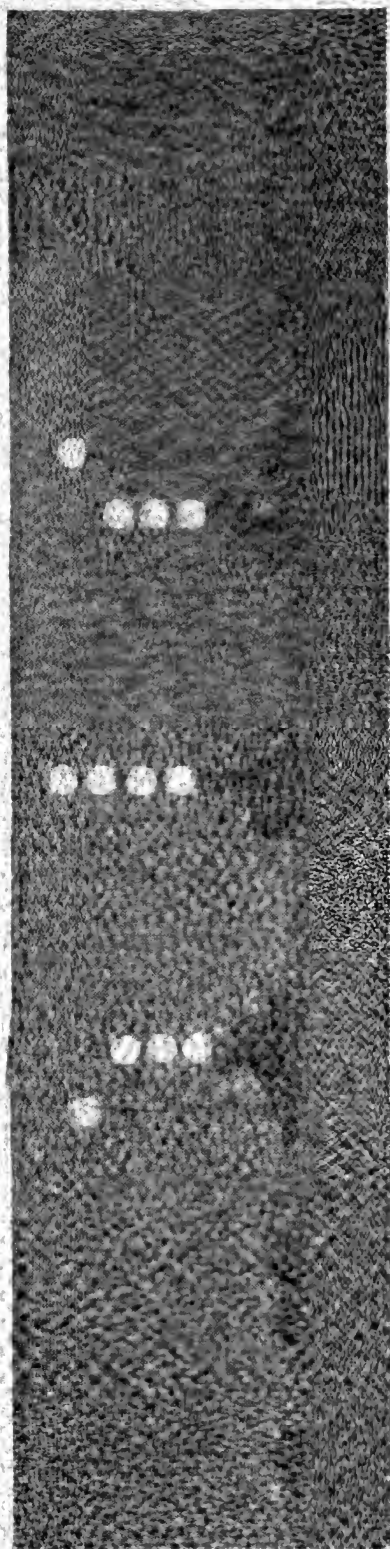
INTERNATIONAL



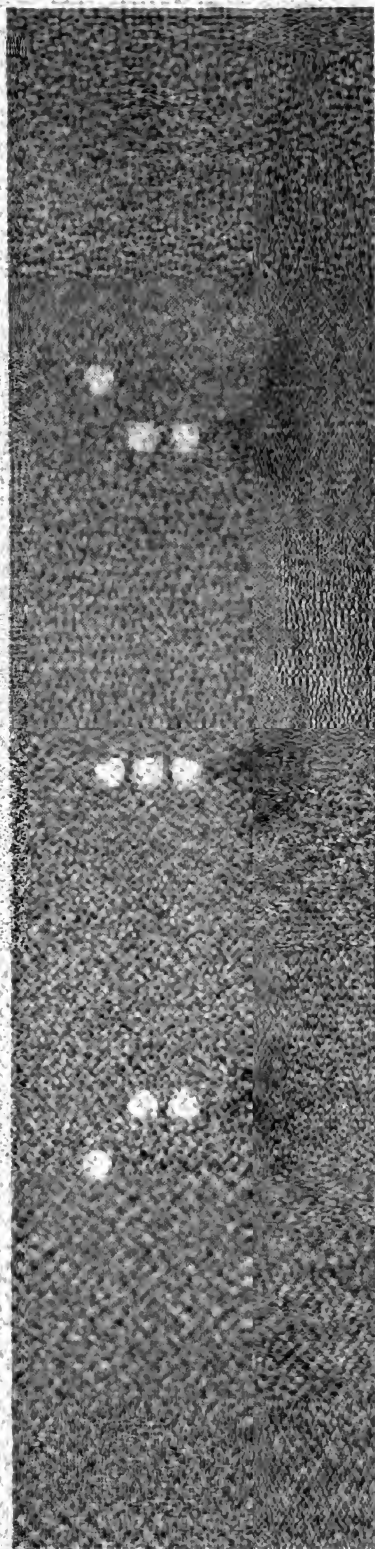
One Vessel in Tow

INTERNATIONAL

Steamers Towing Not Showing Range Lights



Tow of Nine Vessels (Tow over 600 feet long)
INTERNATIONAL AND INLAND



Tow of One Vessel
INTERNATIONAL
Steamers Showing Range Lights When Towing

7

INDEX

A

Abandon ship	75
Absence indicators	212
Absentees	177
Accidents	147, 161, 187, 188
Afirm, use of	148
Afternoon watch	91, 132
Aids to navigation	148, 178
Aircraft—Handling	163
—, Rescue and salvage	81-83
—, Securing at ship	106
—, Wing markings	283-87
Alertness	12
Ammunition	148, 178
Anchor—Chain cable	152
—, Collision	102
—, Dragging	100, 166
—, Swinging into other ships	101
—, Veering chain in emergency	172
Anchor or running lights go out	149
Anchoring	42, 178
Anniversaries and solemnities	220
Appearance and maneuver, smartness of	84
Argentine flags and insignia	259
Assistance to ships, boats, or planes in danger	80

B

Bags or hammocks to be served out	149
Barge, oil, coming alongside	149
Bearing changes, close order maneuvers	55
Bearings	178
Bearings in station keeping	44, 46, 47
Bearings signals	235
Bells, striking of	149
Binnacle lists	150
Board of Survey comes aboard	150
Boarding calls	230
Boards—Examining	179
—, Hull report	187
—, Inquiry	180
—, Investigation	180
—, Survey	150, 180
Boats—Alongside, supervision of	134-38, 150

WATCH OFFICER'S GUIDE

—, Breakdown	150
—, Captains'	135
—, Colors	136, 154, 215, 217
—, Crews away during meals	150
—, Equipment	137
—, Fueling	137, 150
—, Guard	136
—, Hoisting	137, 150
—, Insignia	219
—, Lifeboats	136, 159
—, Loading	104, 136
—, Safety	104
—, Schedules	151
—, Securing	106, 137, 150
—, Smartness and cleanliness	114
—, Supplies and provisions	136
—, Use of	135, 150
—, Water boat alongside	173
Boilers	179
Brazilian flags and insignia	260
Breakdown	67
British flags and insignia	261
Bugle calls	151
Buglers	151
Buoys, position	48, 164

C

Calling committee comes aboard	151
Calls for men, not answered	151
Canadian weather signals	240
Captain	152
Captain—commanding officer	152
Cargo, receiving and discharging	181
Ceremonies: See Honors and	
Chain cable	152
Chilean flags and insignia	262
Chinese flags and insignia	263
Chronometers	152
Clocks, set at sea	152
Close formation, maneuvers in	52
Close order maneuvers: See Maneuvers	
Close station keeping	45
Clothing	14, 153
Coast Guard communications	248
Collision—Anchor	102
—, Danger of exists	153
—, Lights of vessel sighted	159

—, Occurs	153
—, Quarters	75
Collision, stranding, or explosions	74
Colors	112, 121, 154, 166, 167, 213, 214
Column formation, joining	66
Column, station keeping in	45
Comfort and contentment of crew	87, 116
Coming within hail	67
Command pennants	218
Commanding officer—Captain	152
Commission pennants	213
Common sense	6
Communications: See Signals	
Complaints	123
Contentment and comfort of crew	87, 116
Counter-marching	64
Course—Change	152
—, Changes, close order maneuvers	57, 59
—, Setting and change of	182, 183
—, Signals	234
Course and speed indicators	29
Courts—General or inquiry	154
—, Summary	155
Courts-martial	181
Crew's comfort and contentment	87, 116
Crew's smartness, not under way	114
Cuban flags and insignia	261

D

Danish flags and insignia	264
Deaths	183
Deserters	183
Details, port	155
Dipping colors	122, 154, 166, 213
Direct reading signals	232
Direction and speed triangle	141
Discharges	155, 183
Dishes reported dirty	155
Distance changes, close order maneuvers	55
Distance, station keeping	44
Distant station keeping	52
Distress signals	244
Divine service on board	155
Dog watches	92, 132
Drafts and transfers	155, 194
Dragging anchor	100, 166
Dress ship	221-22
Drills	184, 185

WATCH OFFICER'S GUIDE

Dry dock	166
Duty, extra	156
Duty, manner of performing	3

E

Emergency maneuvers	67-73
Emergency signals	237
Engine-room co-operation	27
Engine-room orders	28
Enlistments	185
Entering port	93, 122, 186
Equipment, safety of	104-7
Experience	7, 11
Explosions	102

F

Fire	77, 102, 137, 156, 160
Fire and rescue	80
Fire main leaks	156
First watch	92, 133
Flag officer	156, 157
Flags and insignia	249-85
Flags, direct reading signals	232
Flags, personal	185
Floating object, throwing overboard	163
Fog	20, 157
—, Cruising in	36
—, Signals	36
—, Speed	37
—, Station keeping	48
—, Turning	64
Food complaint	157
Forehandedness	5
Forenoon watch	91, 131
Formation changes, close order maneuvers	57
Formations, special maneuvers	66-67
French flags and insignia	265
Fueling	137, 150, 157, 185
Full dress ship	220-22

G

Gasoline	158
General mess	186
General Signal Book	151
German flags and insignia	266
Getting under way	108, 171, 196
Grecian flags and insignia	267

Guard boats	136, 158
Gun salutes	165, 193, 222-29

H

Half-masting the ensign	216
Hammocks or bags to be served out	149
Hammocks, procedure at	158
Hatches—Engine and dynamo	158
—, Tarpaulins	158
Heat, steam	168
Hoisting boats	137, 150
Honors and ceremonies—Absence indicators	212
—, Anniversaries and solemnities	220
—, Colors	213-16
—, Etiquette, naval	199
—, Flags and pennants	213-19
—, Foreign national anniversaries	222
—, Gun salutes	165, 193, 222-29
—, Man-of-war standing in	161
—, Maneuvers or evolutions, during	211
—, Passing	160, 209-11
—, Personal salutes	200
—, Seniors	200-2
—, Shore stations	206
—, Side etiquette	202, 207-9
—, Sunday	169
—, Table of honors	Back cover
—, Table of honors, abridged	206
—, Visits, official, arrival and departure	203-9, 229-31
Hull board report	187

I

Identification of vessels by their lights	300
Incidents during watch	147
Injuries	161
Injuries, personnel and material	187, 188
Insignia and flags	249-82
Insignia, boats	219
Inspections	124, 187, 188
International and inland rules lights	300
International signals	243
Intoxication	170
Inventories	188
Italian flags and insignia	268

J

Japanese flags and insignia	269
-----------------------------------	-----

K

Knowledge	7
-----------------	---

L

Land, discolored water, breakers, etc., sighted	159
Leadership	6
Leave	188
Liberty parties	124, 159
Life buoys	159
Life jackets	105
Life lines	106
Lifeboats	136, 159
Lights	20
Lights, anchor or running, go out	149
Lights, extension	159
Lights, identification of vessels by their	300
Lights of vessel sighted	159
Lights required by rules of the road	288
Lights, running	149, 160
Loading boats	136
Log	95, 138, 175
—, Instructions for writing	177-98
Loud speaker system	160

M

Magazines	160, 188
Mail, guard	158
Man over the side	161
Man overboard	70, 161
Man reported missing from ship	161
Man returns overtime	162
Maneuver and appearance, smartness of	84
Maneuvering board	141
Maneuvers, log entries	189
Maneuvers, close formation	52
Maneuvers, close order—Bearing changes	55
—, Course changes	57, 59
—, Distance changes	55
—, Formation changes	57
—, Position changes	56
—, Speed changes	54
Maneuvers, emergency—Breakdown	67
—, Man overboard	70
Maneuvers, semi-independent	72
Maneuvers, special—Coming within hail	67
—, Forming up	66
—, Joining column formation	66

WATCH OFFICER'S GUIDE

Mast reports	162, 165
Mast requests	165
Material in general	107
Meal hours	162
Men over the side and aloft	106, 161
Messengers	151
Mexican weather signals	241
Midwatch	89, 128
Mooring	190
Mooring board	141
Morning watch	90, 129, 162

N

Navigation, aids to	148, 178
Navigation, safe	18
Netherlands flags and insignia	270
Night station keeping	51
Norwegian flags and insignia	271

O

Officer of the deck in general	3
Officer of the deck under way	11
—, Regulations concerning	11
Officers, log entires concerning	191, 192
Oil or paint spilled on deck	162
Orderly—time	163
Orders, publishing of	192
Overtime men, effects of	163

P

Paint, fresh	157
Paint or oil spilled on deck	162
Passengers	192
Passing honors	160, 209-11
Pay officer	163
Pennant signals, special	233
Personal flags and pennants	213-17
Peruvian flags and insignia	272
Physical condition	13
Pilot signals	245
Pilots	163
Planes—Handling	163
—, Rescue and salvage	81-83
—, Securing at ship	106
Plotting position	19
Port details	155
Port routine	126

WATCH OFFICER'S GUIDE

Ports, air	164
Portuguese flags and insignia	273
Position buoys	48, 164
Position changes, close order maneuvers	56
Position plotting	19
Prisoners	164, 193
Provisions and supplies	123, 136, 164
Publications concerning officer of the deck	5
Punishment	192

Q

Qualities, officer of the deck	5
Quarantine signals	246
Quarter-deck	114
Quietness	115

R

Rain squall comes up	164
Range lights, identification of vessels by their	300
Readiness of ships for duty, not under way and getting under way	108
Relative distance and speed, time problems	145
Relative movement method, station keeping	47
Relative movement of ships	40, 141
Relieving the deck	9, 11, 12, 14-17, 94, 118, 138
Reporting aboard for duty	162
Reports and salutes	13, 115, 121, 147, 165
Rescue and salvage of planes	81-83
Rescue work	80
Restricted waters, ship handling	30
Routine—Not under way	118
—, Port	125
—, Under way	89
Rules of the road—Lights required by	288
—, Ship handling	31

S

Safety—Navigation	18
—, Personnel, boats, planes, and material	74, 104
—, Precautions	77
—, Ship, not under way	99
Salutes—Gun	165, 193, 222-29
—, Personal	115, 121, 200
Securing boats	137
Securing ship	79, 99
Semi-independent maneuvers	72
Senior officer present pennant	218

Ship handling—Fog	36
—, Formation	39
—, General	22
—, Maneuvers: See Maneuvers	
—, Restricted waters	30
—, Rules of the road	31
—, Situations	29
—, Smartness of maneuver and appearance	84
—, Station keeping: See Station keeping	
—, Turning	58-66
—, Under way, getting	41
Showers	167
Sick man, transfer	171
Side and upper works appearance	113
Side honors	202, 207-9
Sighted, ships	193
Signal Book, General	151
Signal lights fail	167
Signals—Breakdown	68
—, Coast Guard stations	248
—, Direct reading	40, 232
—, Distress	244
—, Fog	36
—, <i>International Code of Signals</i>	243
—, Merchant vessels	247
—, Official, receiving and sending	167
—, Pilot	245
—, Quarantine	246
—, Single-letter	246
—, Smartness	112
—, Sound	35
—, Towing	247
—, Two-letter	247
—, Unofficial, receiving and sending	167
—, Weather	238
Signals, time and uniform	167, 170
Single-letter signals	246
Siren sounded by accident	167
Sleeping, forbidden areas	168
Smartness—Not under way, ship, boats, and crew	112
—, Under way, maneuver and appearance	84
Sound signals	35
Spanish flags and insignia	274
Speed—Changes, close order maneuvers	54
—, Fog	37
—, Signals	234
—, Turning	62
Speed and course indicators	29

WATCH OFFICER'S GUIDE

Speed and direction triangle	141
Standard orders for steering and handling engines	24
Station keeping—Bearings and distance in	44
—, Care in	13, 43
—, Close	45
—, Distant	52
—, Fog	48
—, Kinds	44
—, Methods	46
—, Night, ship darkened	51
—, Relative movement method	47
Steering engine test	168
Steering, standard orders for	24
Steersmen	26
Stores	107, 123, 168, 169, 174
Storm signals	238
Stragglers	169
Stranding	76
Sunday routine	155, 169
Supplies and provisions	123, 136, 164
Swedish flags and insignia	275
Swimming	169
Swinging into other ships at anchor	101

T

Tactical characteristics	23
Taking over the deck: See Relieving	
Taps extension	169
Targets	170
Tide	194
Time problems in relative movement	145
Time, zone, changing of	174
Torpedo, lost	170
Towing signals	247
Track line method, station keeping	47
Transfer of sick man	171
Transfers and drafts	155, 170, 194
Turkish flags and insignia	276
Turning—After ship turning badly	65
—, Approach	60
—, Changes of course in succession, column movement	59-66
—, Column, line, and line of bearing	58
—, Counter-marching	64
—, Inside	62
—, Night or in fog	64
—, Outside	63
—, Ship handling in general	22

WATCH OFFICER'S GUIDE

—, Speed	62
—, Timing	64
Two-letter signals	247

U

Under-way colors	167
Under way, getting	108, 171, 195
Under-way hour, procedure	171
Uniforms	114, 123
Union jack	122
United States—Flags and insignia	250-58
—, Weather signals	239
Unmooring	196

V

Veering chain in emergency	172
Vigilance	6, 36
Visiting parties	172, 173
Visitors	125, 196
Visits, official	196, 203-9, 229-31

W

Watch officers' stations	168
Watches	89, 128
—, Incidents during and what to do	147
—, Log entries	196-98
Water boat alongside	173
Water-closets	173
Weather, heavy, preparations	173
Weather signals	238
Wing markings, aircraft	283-87
Workmen	198



UNIVERSITY OF MICHIGAN



3 9015 05428 5666

1877

1

